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ABSTRACT

The Information Technology Plan as set forth in this document provides the organizational structure, assignment of duties, infrastructure, and philosophic environment that should permit the Kern Community College District to proceed in an orderly manner in developing information technology to enhance student learning, serve the faculty, and provide effective administrative services. This information technology plan contains the following sections: (1) Introduction; (2) Executive Summary; (3) Mission Statement; (4) Guiding Principles; (5) Surveys, Students and Staff; (6) Organizational Structure, which includes the following subsections: (a) Introduction, (b) Tables of Organization and Committee Memberships, (c) Instructional Technology Committee, (d) Instructional Technology Director, (e) Administrative Technology Committee, (f) Administrative Technology Director, and (g) Communication; (7) Infrastructure, which contains: (a) Introduction, (b) Schematics, and (c) Standards; (8) Computer Use Procedures; (9) Distance Education; (10) Video Conferencing; (11) Financing; (12) Evaluation; and (13) Summary of Recommendations, including: (a) information technology must be developed on a district-wide basis with full participation of the three colleges; and (b) the principle of sharing facilities and personnel with respect to information technology must be implemented. Appended in the report are four sections, which include: (A) Planning Suggestions, (B) Retreat Purposes, (C) Information Technology Task Force (ITTF) Membership and Charge, and (D) Survey Instruments. (VWC)

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ED 433 890

INFORMATION TECHNOLOGY PLAN

KERN COMMUNITY COLLEGE DISTRICT

DEVELOPED AND SUBMITTED BY
THE INFORMATION TECHNOLOGY TASK FORCE

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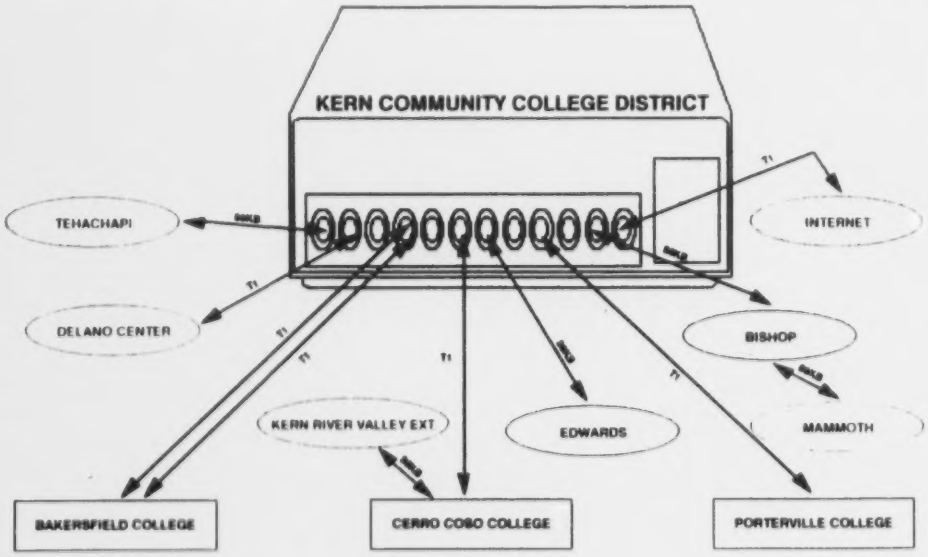

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KCCD
KERN COMMUNITY COLLEGE DISTRICT

OFFICE OF THE CHANCELLOR
2100 CHESTER AVENUE
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September 4, 1996

Dr. James Young, Chancellor
Kern Community College District
2100 Chester Avenue
Bakersfield, CA 93301

Dear Dr. Young:

This Information Technology Plan for the Kern Community College District is submitted to you by the Information Technology Task Force (ITTF) after two years of meetings, drafts, modification, and refinements.

The major sections of this Plan are the result of broad participation including the dedicated work of ITTF, input from the Colleges, and frequently from the Chancellor's Cabinet. I am satisfied that this Plan is a good starting point for accomplishing the Mission of Information Technology. To illustrate the dynamic nature of this Plan, changes are being proposed even at this early date. It is my belief, shared by ITTF, that proposed changes will continue to be made, and some of them adopted. However, it is our strong recommendation that changes be made only after appropriate due process.

The major thrust of this Plan is to put in place a District-wide, integrated approach to the development of Information Technology. Sharing of personnel, facilities, equipment, and ideas is emphasized. Coordination of a District-wide effort is called for using a participative, consensual approach. Appropriate training is an integral component that is recommended in many places.

The implementation of this Plan should be closely monitored, and the recommended biennial evaluation should become a major effort.

My office is prepared to give this Plan wide distribution within the District and perhaps beyond.

Respectfully submitted,

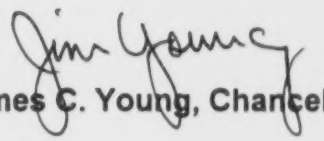
John J. Collins
Chair of ITTF

JJC/ccm

cc: ITTF

PREFACE

Over 100 staff members have participated directly in the development of this Plan, and countless others have had an opportunity to review drafts and make suggestions. This living document will be our roadmap for now, but changes are inherent in a Plan of this importance and magnitude. To properly serve students and staff with respect to Information Technology throughout the District is the goal of this Plan.



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Information Technology Plan

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INTRODUCTION

Information Technology

Introduction

A. Rationale for an Information Technology Plan

Information Technology, as used throughout this document, refers to all communications technologies including, but not limited to, voice, data, and video used to enhance student learning and services, support the productivity of faculty and staff, and contribute to management effectiveness. This broad definition encompasses a technology that is difficult to describe because it is ever changing, and at a very rapid pace.

In planning for the effective use of information technology in a college environment, it is important to operate within a frame of reference that acknowledges the dynamics of change. Plans, once drawn, are not static; they must be firm enough to move the enterprise along in an orderly manner, and flexible enough to respond not only to technical advances but also to new configurations and methods related to instruction and services to students and staff.

On a spectrum that runs from "no plan" at one extreme, to rigid bureaucratic "regulation" at the other extreme, colleges must find a middle ground where creativity is encouraged, and where reasonable responses can be made to changing technology. Not an easy assignment!

Most large, complex organizations cannot function effectively with "no plan." "No plan" in a large college environment would probably lead to unnecessary and expensive duplication, and an unevenness of quality of services that would reward the most affluent or the most aggressive. Equity for students and staff demands a more even-handed approach to developing information technology. This need is made more compelling in a multi-college district where the aim is to provide quality education and services to students no matter where they are located.

Early in the development of this Information Technology Plan, faculty and staff participants at a Retreat called to address this subject responded to the need for a plan with the suggestions noted in Appendix A of this Plan. In summary, the participants strongly endorsed the need for an Information Technology Plan, emphasized the importance of involvement of staff in the development of such a plan, admonished the planners to be flexible, and cited the need for structure and organization.

Consensus at the Retreat suggested that the District reject the notion of "no plan" and proceed in an orderly way to develop a plan that will provide a structure and an organizational climate that will encourage and facilitate the use of information technology in both instruction and services. Of paramount importance in the development and implementation of such a plan is the allocation of scarce resources. No organization has unlimited resources, and in a multi-college district the allocation of resources is made more complex by the principle of equity for students regardless of location.

Recognition of the problem of equitable distribution of scarce resources leads any large organization to the principles of sharing and coordination. Fortunately, information technology lends itself easily to the principle of sharing. Computer laboratories can be shared by students from many departments; centrally located main frames can provide services to all of the colleges; and distance learning can emanate from a central studio to serve students in remote locations. Although never easy, proper planning should enhance and expedite the principle of sharing.

Coordination of the development and use of information technology, although useful and necessary, is never easy in a college environment. To some people, coordination means control, and control threatens creativity. Coordination means bureaucratic stifling to many people, and instead of expediting services, it looms as an obstacle.

However, for the management of any complex organization, coordination and cooperation are necessary to insure orderly growth; to limit unnecessary duplication; to provide equity for students and staff; and to maximize the use of limited resources. Actually, in a college environment, coordination provides for control through consensus rather than through inflexible regulations; coordination requires involvement; coordination can and should encourage flexibility and creativity; and coordination is a means for insuring orderly development.

So, if the District rejects the concepts of "no plan," and the idea of rigid regulation, it will probably locate itself on the spectrum somewhere near the middle where participative coordination is the guiding principle of planning. For this Information Technology Plan for the Kern Community College District, consistent and determined efforts have been and are being made to emphasize and encourage participation, consensus management, and coordination. The rationale for this plan, therefore, is to provide the structure and the organizational climate to encourage the orderly development of information technology in the Kern Community College District emphasizing sharing and coordination.

B. The Planning Process

During the summer of 1994, the Chancellor of the Kern Community College District took the first steps to address the fact that the District had no comprehensive plan for the development of information technology. In existence was a District-wide Management Information System used almost exclusively for administration and services. At the Colleges, efforts were being made to use information technology to augment and enhance instruction, but these efforts were uneven, with Bakersfield College taking a sophisticated and somewhat comprehensive approach, while the other two Colleges were doing less.

It was apparent that the development of information technology was expensive, frequently led to duplication, and was markedly uneven in its services to students and staff. It was also clear that information technology was able to provide access to information and useful compilation of data at an ever increasing pace. Almost no agency or organization was able to keep up with what came to be called "the state of the art." Capabilities were changing at a very rapid rate, standards were being up-graded by the industry in both hardware and software, and it was plain that without a District-wide information technology plan, the chances of making costly mistakes were high, and the development of information technology in an inequitable and unstructured manner was almost certain. There was strong feeling on the part of the Chancellor, the Board of Trustees, and staff at the Colleges that an orderly, effective, and efficient development of information technology required a comprehensive plan that would be developed in a participative manner and thus have broad understanding and support.

In July, 1994, the Chancellor, accompanied by appropriate staff visited the Maricopa Community Colleges District in Arizona. This District had become a leader in the development of information technology and it was felt that this would be a good introduction to the issues to be faced. The mission of information technology, organizational structure, and capabilities of the infrastructure were all discussed and/or observed. The Maricopa District with ten colleges makes a centralized effort to manage information technology, but with wide latitude for the member colleges. Although the Maricopa District has been a leader in planning for and developing information technology, it has not developed a written plan. Instead, it has developed a procedure for planning that is useful, but not a plan, per se.

Following the Maricopa trip, the District contacted every multi-college community college district in California to obtain information technology plans that may have been developed. Responses were received from Foothill/DeAnza, Chabot/Las Positas, Coast, and San Diego Districts. All of these college districts expressed the need for an information technology plan, but none of them had developed a comprehensive plan.

The nearest approach to a real plan was made by the CSU System, published in 1991. This document defines information technology and notes the components of a

comprehensive information technology plan.

The California Planning Commission for Educational Technology published its Master Plan in April 1992. This is a useful resource document but falls short of being a plan.

After this review of help that might be obtained from other colleges, it was decided to bring selected staff together in a two day Retreat to address issues relating to information technology, and particularly in planning for IT. This Retreat took place on September 22 and 23, 1994, with Jan Baltzer of the Maricopa District acting as facilitator. About 65 staff members participated in the Retreat representing faculty, staff, administrators, and Trustees. Purposes of the Retreat are set forth in Appendix B. In summary, the Retreat was designed to generate interest in IT, present examples of efforts being made using IT, and to define the components of a District IT Plan.

Following the Retreat, summaries of the various group sessions were compiled and mailed out to the participants. These summaries included seven mission statements developed by the groups as well as a compilation of the suggested components of an IT Plan.

The Retreat provided the impetus to proceed with District-wide planning for IT through the appointment in October, 1994 of an Information Technology Task Force composed of District and college personnel. Appendix C notes the membership of this Task Force (ITTF), and also the "charge" made to it by the Chancellor of the District. In summary, this "charge" asked ITTF to provide the leadership for developing a Kern Community College District Information Technology Plan and spelled out some of the specific tasks being assigned.

The Information Technology Task Force began meeting in November, 1994, and has met on a monthly basis through June, 1996. To address the "charge," it has sometimes been necessary to form sub-committees and augment these sub-committees with knowledgeable people from the District/Colleges. In the course of 1995-1996, ITTF developed the following documents which have become integral to the KCCD Information Technology Plan presented here.

- Mission Statement
- Guiding Principles
- Surveys of Students and Employees
- Organizational Structure for Information Technology
- Infrastructure Schematics and Standards
- Computer Use Policies
- Distance Education and Video Conferencing
- Financing the Plan

- Evaluation of the Plan

As the above documents were developed, drafts were submitted to ITTF, to the College Information Technology Committees, and frequently to the Chancellor's Cabinet. In most instances there were many drafts developed as the participative approach unfolded. The procedure used, and the resulting changes suggests that this Plan will be a dynamic, often changing document. However, a written Plan also requires that the District follow its own Plan, and that changes will only be made after due process.

C. The Plan

The Kern Community College Information Technology Plan is outlined in the Table of Contents of this Plan. As indicated earlier, this Plan will be submitted to the Chancellor for approval by June 30, 1996. It is the intention of ITTF that the Plan be a starting point. Circumstances will change requiring changes in the Plan. Information Technology is a highly dynamic enterprise that will force changes. Experience will suggest changes. Resources available will have their impact on change. And the evaluation system suggested will bring about needed changes.

The Information Technology Plan as set forth in this document provides the organizational structure, the assignment of duties, the infrastructure, and the philosophic environment that should permit the Kern community College District to proceed in an orderly manner to develop information technology to enhance student learning, serve the faculty, and provide the administrative services necessary to an organization of the size and complexity of the Kern Community College District.

EXECUTIVE SUMMARY

Information Technology

Executive Summary

In the pages which follow, the Information Technology Plan for the Kern Community College is set forth. This plan includes the elements of a strategic plan, leaving the specific details to the groups that are empowered to implement the Plan. Underlying all aspects of the Plan is a commitment to on-going evaluation and resultant change in an orderly manner.

In developing this Plan, consistent efforts have been made to provide equity for the three Colleges of the District, and still encourage and support creativity. In the world of information technology change appears to be a constant. Therefore, the organizational structure and climate have to be geared to considering the need for change, and implementing change with an orderly and consensual approach.

From the very beginning in the development of this Plan, efforts have been made to implement the principle of sharing. The cost of a comprehensive and current information technology system is too great to permit unnecessary duplication. Also, information technology lends itself to sharing since communication can be instantaneous thus overcoming some of the limitations of location and time.

To actually share information technology capabilities requires a certain level of coordination which tends toward centralization. To overcome the weakness inherent in centralization, efforts have been made to create an organizational structure and climate that is consensual in nature. For example, the two District-wide Information Technology Committees, Administration and Instructional, are heavily weighted in membership with representatives from the Colleges. In the case of the Administrative Technology committee, four out of seven members are sent by the Colleges. With Instructional Technology, eleven out of fourteen members are from the Colleges. These two District-wide groups are charged with implementing this strategic Plan, and developing their own tactical plans for dealing with needs, problems, and execution. There will be a thrust in the direction of sharing and coordination, but the approach will be consensual.

The Mission Statement provides the general philosophic framework for the continuing development and implementation of this Plan. The Guiding Principles more specifically establish the "road signs" for development and implementation.

As the various components of this Plan were drafted, modified, and finally adopted, frequent reference was made to the results of the Surveys of students and employees. These Surveys were made and reported in the Spring of 1995. They provide the

benchmarks of where the District/Colleges were at that time with respect to the development of information technology services to students and staff. A summary of student and staff responses can be found in the section of the Plan entitled Surveys. It is anticipated that there will be a need, from time-to-time, to go back to the students and staff to determine strengths and weaknesses of the effort to develop a viable system of information technology to meet their continuing and probably changing needs.

At the heart of this Plan is the Organizational Structure which sets forth a system for implementation and addressing problems and issues that is consensual in nature. A structure is created, including categories of membership on the two district-wide Information Technology Committees, and their "charges," as well as a written commitment to a two-way street of communication. The job descriptions of the two District Directors are noted which emphasize the continuing involvement of staff as well as evaluation leading to probable change.

Complex organizations do not run along smoothly without differences requiring adjudication. The organizational model for this Plan recognizes this reality by placing the two District Directors on both of the District-wide Information Technology Committees. Differences that cannot be ironed out at that level will be referred to the Chancellor's Cabinet for adjudication. It is the intention of this Plan that the Cabinet only be burdened with policy level issues, and/or major procedural questions.

The Organizational structure and environment proposed in this Plan calls for the sharing of personnel. It is the intention to add technically trained staff who will serve the entire District. This is already the case with respect to Administrative Technology Services. As Instructional Technology Services are developed, staff will be assigned on a District-wide basis, reporting to the District Director of Instructional Technology. Where these staff members are located will be decided on the basis of need, available facilities and equipment, and efficient operation. In the vast majority of instances the Instructional Technology staff will be located on the College campuses.

In decision making, Colleges live in the world of consensus. This is not the easy way to set direction and settle issues. It is time consuming and tension producing, but it is the historical approach used by colleges to reach decisions. It goes without saying, perhaps, that decisions have to be reached. Complex organizations do no prosper, or even survive, in the absence of firm and timely decisions. So - the Information Technology Committees are charged with meeting needs and settling problems in a firm and timely manner using a consensual approach. Failing that, the Chancellor with the help of the Cabinet will make the final call. Due process - YES; lack of direction - No!

The development of information technology cannot proceed in a timely and effective manner without a high quality and regularly maintained infrastructure. This Plan sets forth the need for an improved infrastructure citing schematics and standards. In a District that

stretches from Porterville south thru Bakersfield and east to Inyo and Mono Counties the need for an effective telecommunication system is paramount.

The infrastructure is an important component of this Plan which is changing, almost from day-to-day. The schematics note the existing backbone as well as proposed equipment and cabling. As this Plan is printed and distributed, the infrastructure schematics have already changed. More changes are proposed. And many more changes will be developed and implemented as new needs arise and as the technology changes. This infrastructure, as everyone will agree, is expensive, and the Plan calls for sharing insofar as this is appropriate. Powerful, centrally located, facilities and equipment can be shared by all. On the other hand, duplication of some facilities and equipment at all three colleges is necessary. As this Plan is implemented, many decisions related to the infrastructure will have to be made, implemented, and financed.

With great difficulty and with much discussion and re-drafting, standards for the infrastructure were developed and adopted. These standards are to be implemented District-wide, with built-in machinery for considering requests for exceptions. It is the intention of this Plan to establish a system for acquiring and installing infrastructure components that meet the tests of compatibility, quality control, and reliability of performance. As experience is gained, and as industry capabilities change, these standards will have to be re-examined and evaluated on a continuing basis.

The geographic size of the District suggests that Distance Education will become an important mode of delivering instructional services. The Plan notes the rationale for providing Distance Education, the modes of the delivery system, as well as current status and future applications.

Video conferencing facilities and equipment are described in the Plan, with a timetable for implementation. These Video Conferencing capabilities will provide for some Distance Education transmissions on a limited scale, but are mainly to be used for group meetings and even individual communications. The system has counseling capabilities, but will mainly be used for group meetings aimed at reducing time currently spent in travel. Facilities for Video Conferencing will be provided at each College campus and at the District.

The Plan addresses the need for policies related to computer uses. These "do's and don't's" are designed to give the Colleges a basis for imposing sanctions for the mis-use or abuse of the computer facilities provided. In the future it is anticipated that the District will develop and implement Procedural Security Measures to protect the systems and the data residing in them.

In the section on Financing Information Technology, attention is called to the high cost of the program and the necessity for sharing and reducing unnecessary duplication.

Funding requirements are set forth as well as proposed funding sources. It is the intention of this Plan that just as the District has organized and funded Administrative Technology, so it should organize and fund Instructional Technology. This will require a commitment by the District for providing adequate levels of financial support, for staying current, and moving ahead with the development of Instructional Technology.

Set forth at the conclusion of the Plan is a commitment to both on-going and periodic evaluation. Ten Criteria of Success are suggested against which implementation can be evaluated.

And - finally - this Plan is a beginning, not an end. Once adopted, this Plan will provide the structure and the environment for the orderly development of Information Technology. Representative groups are established to develop and monitor the Plan. During the two years the Plan has been under development is has changed substantially. So - it is anticipated that the Plan will continue to change as new needs surface and new responses are required.

Following the principle of providing equitable services to students and staff in a timely and efficient manner, and depending on the judgement and good will of the professional staff, the implementation of this Plan should go forward in an effective and timely manner.

MISSION STATEMENT

Information Technology

Introduction to Mission Statement

At the Information Technology Retreat held in September 1994, the Retreat Facilitator asked eight groups to develop proposed Mission Statements to guide the District in its development of an Information Technology Plan.

These Mission Statements were all presented at the Retreat. A common thread running through all of them was the need for an organizational structure to implement the Information Technology Plan that was to be developed by the Kern Community College District. Access to computers and training in their use were also frequently mentioned needs that found their way into the Mission Statement.

From these eight Mission Statements, a First Draft was developed, sent out to the 65 Retreat participants for comment and suggestions, and from these responses Draft #2 was written by ITTF, the District Information Technology Task Force.

The Chancellor's Cabinet reviewed this document, suggested changes, and sent it out to the Academic Senates for review and suggestions. Once these were received, Draft #3 was developed, approved by the Chancellor's Cabinet and by the Board of Trustees.

By March 1995 the Mission Statement, which follows in this Plan, had the approval of ITTF, the Chancellor's Cabinet, the Academic Senates, and the Board of Trustees of the Kern Community College District. This Mission Statement has been referred to frequently in the development of this Information Technology Plan, and it is expected to guide the District as the IT Plan is implemented and used.

INFORMATION TECHNOLOGY

MISSION STATEMENT

GENERAL CHARGE:

The Kern Community College District and its member colleges will develop, provide, and maintain a comprehensive information technology system which encourages and supports the use of information technology for instruction, services to students, and for general administration.

Action Plan

To accomplish this Mission, the District will:

- Provide and maintain a high quality, open architecture, service-based information technology infrastructure, and inform the staff of its availability and capabilities.
- Develop an on-going strategic planning process in information technology that will serve the faculty, staff, community, and the institutions, including their extensions, and which will include specific objectives, activities, and time-frame.
- Provide the organizational structure and functions to ensure an orderly and economically sound development of the uses of information technology in instruction and other educational services.
- Provide a system of on-going training of faculty and staff in the capabilities of the information technology infrastructure, and in the many uses of information technology to enhance learning and services.
- Secure and allocate financial resources for the development of information technology, thereby encouraging and supporting creative efforts in this field.
- Encourage alternative modes of organizing for instruction and services consistent with educational quality, making allowances for the time and talent commitment of faculty and staff in the development and implementation of new delivery systems.
- Cooperate with business and industry and other community agencies in providing and gaining access to information in a two-way exchange.
- Develop and implement distance learning, consistent with educational quality, which may include telecourses, multimedia, computers, interactive systems, and emerging technologies.
- Emphasize that there are many successful modes of providing high quality instruction and services, and that the expanding use of information technology as a tool for these purposes is simply one of these.

Approved by:
Chancellors Cabinet - October 11, 1994
Information Technology Task Force - November 29, 1994
Academic Senates - February 15, 1995

GUIDING PRINCIPLES

Information Technology

Introduction to Guiding Principles

As the Information Technology Plan of the Kern Community College District is developed and implemented, staff should be guided by a set of agreed upon principles. Experience with and evaluation of the Plan will probably suggest changes, and as these changes are considered it is prudent to have agreed upon principles that will provide guidance.

The District Information Technology Task Force (ITTF) set about developing these Principles shortly after the Technology Retreat held in September, 1994. At the Retreat many participants identified the need to develop Guiding Principles for IT, and suggestions were made with respect to actual wording for the Principles.

ITTF started with these suggestions, reviewed principles developed by the Maricopa District, the University of California and the CSUC System, and by May of 1995, had developed the first draft of Guiding Principles. In October 1995 these Principles were put in final draft form and recommended to the Chancellor for consideration. Since that date, the Chancellors Cabinet and the College IT Committees have reviewed the draft, changes have been suggested and made, and on March 26, 1996 the Information Technology Guiding Principles which follow were adopted by the Chancellors Cabinet.

Information Technology

Guiding Principles

Preface

Information Technology, as used in these Guiding Principles, refers to all communications technologies including, but not limited to, voice, data, and video used to enhance student learning and services, support the productivity of faculty and staff, and contribute to management effectiveness. These Principles refer to responsibilities that rest with both the District and the Colleges.

To guide the Kern Community College District and its member Colleges in planning and implementation of Information Technology, the following Principles are adopted:

1. Information Technology will provide one of the means to enhance student learning and deliver student services effectively and efficiently.

2. Information Technology will be organized on a District-wide basis to provide services to student, to instruction, to administration, and to the community.

3. Information Technology will be organized and will operate to emphasize and implement the principles of sharing and coordination, and to limit unnecessary duplication.

4. Information Technology will provide the hardware, software, and training for faculty and staff that is required by them to effectively and efficiently perform their jobs.

5. Information Technology will promote the development of both instructional and administrative technology.

6. Information Technology will be a facilitating service that promotes flexibility while recognizing the need for District-wide goals.

7. Information Technology will provide the organization and commitment to engage in continuing short-term and long-term planning.

8. Information Technology will establish clear communication channels for resolving problems and for feedback to those being served.

9. Information Technology will serve libraries by computerizing access to information that can be called up District-wide and beyond.

10. Information Technology will provide a comprehensive infrastructure to meet the technical needs of the Colleges and the District.

11. Information Technology will provide the infrastructure and necessary training to support alternative instructional delivery systems, computer augmented instruction, distance education, and access to Internet.

12. Information Technology will establish a networking infrastructure which will, to the extent feasible provide services to students, staff, and the community from off-campus sites.

13. Information Technology will provide a reliable system of maintenance of its various components, including trouble shooting in a timely manner, so that access will be improved and down-time will be minimized.

14. Information Technology will use a participative process in the selection of hardware and software architecture, applying District adopted infrastructure standards.

15. Information Technology will provide for periodic evaluation of hardware and software systems, and develop a long-range plan to consider new industry capabilities and to calendar for necessary replacements.

16. Information Technology will have operating budgets at both the District and College levels.

17. Information Technology will establish contacts with other agencies, consortia, foundation, et. al., for purposes of coordination and assistance in its efforts to provide services.

18. Information Technology will continually evaluate and improve its own internal processes and methods of providing services.

Approved by ITTF - October 16, 1995
Approved - Chancellor's Cabinet - March 26, 1996

SURVEYS

STUDENTS
FACULTY
STAFF

Information Technology
Summary of Surveys

Introduction

At the Information Technology Retreat held in September 1994 which included 65 faculty and staff, the participants were asked to make recommendations regarding the next steps in planning for information technology. Almost everyone cited the need for a survey of students and staff that would give the District information related to current uses and needs in the field of information technology. Two survey instruments were developed by the Districts' Information Technology Task Force (ITTF), one for students, and one for employees. (See Appendix D for copies of the two survey instruments.)

In March 1995 the Student Survey form was mailed out to a randomly selected group of 2100 students proportionately representative of the three colleges, including evening students and students registered at the Centers. The student response of 594 was deemed an adequate sample. No effort was made to categorize students by day, evening, units enrolled, age, sex, or any other classification. Student responses were tabulated and analyzed by College as follows:

	Mailed	Received	Percent
Bakersfield College	1200	333	28%
Cerro Coso College	500	168	34%
Porterville College	400	93	23%
Total	2100	594	28%

All employees of the District received an Employee Survey Form in March 1995. There follows a tabulation of surveys mailed out and received.

	Mailed	Received	Percent
Bakersfield College	857	353	41%
Cerro Coso College	350	177	51%
Porterville College	250	90	36%
District	37	28	76%
Total	1494	648	43%

Since total returns from employees were at the 43% level, it was determined by ITTF that this was an adequate sample of employees from which to draw reliable conclusions.

Employees were divided into categories for purposes of tabulation analysis and reports as follows.

	Surveys Received
Faculty	
Regular	189
Adjunct	180
Classified Employees	235
Administrators	44
TOTAL	648

Student Survey - Major Findings

Although not included in the Appendix, a complete Report on Student Survey Responses has been developed and circulated widely throughout the District. This Report is a matter of record at the District Office.

Major findings from student responses that helped to guide in the development of this Kern Community College District IT Plan are noted here as follows:

1. Two-thirds of Kern Community College District students use computers in one or more of their college classes. Lack of training or lack of access are the main reasons given for not using computers.

2. Over 50% of Kern Community College District students have a computer at home, and half of those have a modem that permits access to college computers.

3. Eighty percent of the students view access to computers as "very important" in their college work. Only 2% say it is "not important."

   However, access is a very crucial issue with less than 30% of students indicating they have "good" access to college computing facilities.

4. Computer applications cited as most important by students relate to keyboard skills and word processing, not to more sophisticated other uses.

5. Courses that teach about using computers get high marks, District-wide.

   Likewise, with courses that use computers to help present the course material, the ratings are very high.

6. About 80% of Kern community College District students support the concept that every college student should be able to use a computer.

7. Students are very favorably disposed to the use of computers in providing services such as telephone registration, in libraries, etc.

Student Comments

Each student responding to the Survey had numerous opportunities to make comments, and large numbers took advantage of this. Student comments have been widely circulated throughout the District and are a matter of record at the District Office.

A major thread running through most of the student comments relates to lack of access. This, of course, impacts on planning for the future.

Another main theme is that the students who have experienced the presentation of class materials using computers are very impressed with this mode. On the other hand, 42% of students District-wide have had no experience with this means of classroom presentations. This indicates that the District/Colleges should do more in the development of instructional technology.

Summary

For purposes of planning, students responding to the Survey provided important data and perceptions that can be used to guide the Kern Community College District as it develops the Plan for Information Technology, and as it evaluates the implementation of this Plan.

Faculty Survey - Major Findings

All faculty, regular and adjunct, had the opportunity to respond to the Survey. There follows a tabulation of Survey forms returned:

College	Returned	
	Regular	Adjunct
Bakersfield College	115	88
Cerro Coso College	43	74
Porterville College	31	18
Total	189	180

Although not included in this Plan, a complete Report on Faculty Survey Responses has been developed and circulated widely throughout the District. This Report is a matter of record at the District Office. Major findings from faculty responses, both regular and adjunct, that helped to guide in the development of this Plan are noted here as follows:

1. Over two-thirds of regular faculty and one-half of adjunct faculty use a computer in their assignments at the colleges.

   Those responding in the negative with respect to using a computer at work most frequently cited lack of access and lack of training as major reasons. These reasons have great impact for planning in the field of information technology.

2. Overwhelmingly, faculty have computers at home (84%) and most of these (66%) are compatible with those at work. Adjunct faculty are no different than regular faculty in these regards.

   Faculty know how to use wordprocessors and spreadsheets, and large numbers of them make use of these applications.

3. With respect to further training in computer applications, the faculties commented widely and in depth signifying the importance of regular training programs.

4. The faculties, like other employees, are quite familiar with telephone related features. However, two-thirds depend on others with respect to more sophisticated telephone applications.

5. There is widespread interest among the faculties for learning more about distance education.

6. About two-thirds of the faculties use computers in the preparation of course material. Of those not using these applications, the major explanations given cite lack of access and lack of training as the reasons. And, a very high number (84%) want to learn more about using computers in the classroom.

7. Although a high number of faculty use computers in the preparation of class material as noted above, a much lower percentage (20%) use electronic media for classroom presentations.

   Only about 2% say they are "not interested" in this mode of instruction. They cite as their reasons for not using it as lack of training, and lack of hardware and software. Actually about 50% say they want training immediately. There is, then, widespread interest in learning about the new modes of instruction that relate to information technology.

   Out of ten classroom applications for classroom teaching/learning the faculties in significant numbers expressed an interest in all of them.

8. The faculties are also interested in learning more about computer related services such as test generation, grade keeping, library access, Internet access, etc.

Faculty Comments

As with the students, the faculties made voluminous comments related to the use of computers in their work. These have been widely circulated throughout the District, and have been used extensively in the planning process for information technology.

Faculty want access and they want training. They are willing to spend enormous blocks of their own time in preparing for new modes of instruction which are computer oriented. A common complaint relates to the lack of equipment. "Where is the computer on my desk" was frequently voiced in the comment sections.

It is important for planners to keep in mind that many faculty stated the case for "low-tech" instruction. There is a fear expressed by many that traditional and successful modes of instruction will be too easily set aside in favor of the new ways. We are warned by the faculty that careful planning should not overlook the "tried and true ways," nor unduly emphasize the role of the computer or other technologies in teaching/learning.

Summary

For the past 25 years, the Kern Community College District has developed and is developing a sophisticated system of providing computer generated services. There has not been a parallel development in instructional technology. The Survey bears this out, and faculty responses and faculty comments call attention to this gap in emphasis. The development of instructional technology is called for, so long as the District keeps in mind the value of traditional modes of instruction.

Classified Employees Survey - Major Findings

As indicated earlier, 235 Classified employees responded to the Survey Form as follows.

Bakersfield College	125
Cerro Coso College	53
Porterville College	34
District Office	23
Total	235

No effort was made to categorize Classified employees, i.e., to indicate their type of work.

Major findings from the Classified Employees responses that helped in the development of the Kern Community College District IT Plan are noted here as follows:

1. A large percentage (84%) of Classified employees use a computer at work, and 58% have a computer at home. And -- of those with a computer at home, 67% are compatible with the one at work.

   In general, then, the Classified staff is computer literate and able to participate fully in the expansion of computer uses.

2. Word processors are virtually a requirement in the work of three-fourths of the Classified staff. Also, Classified employees are the major users of spreadsheets.

   The need for additional training in both spreadsheets and word processors is emphasized by most Classified staff.

3. In addition to training with word processors and spreadsheets, Classified employees mention training in d-base as a frequently expressed need.

4. Classified employees know how to use a wide variety of telephone functions, but express particularly a need for training in the voice-mail area.

5. With respect to instructionally related functions of computers, the Classified staff is knowledgeable enough to provide support services. However, the need for and the willingness to get additional training in these areas is often mentioned.

6. Classified staff assist the faculty and students in a very wide variety of computer functions.

Staff Comments

Staff comments were voluminous, have been widely circulated, and are a matter of record at the District Office. Here, again, comments emphasize the need for access and training.

Summary

For purposes of planning in the area of information technology, the Survey illuminates the resources residing in the Classified staff which should be tapped as the Kern Community College District develops its Information Technology Plan.

A Final Note on the Surveys

The Survey responses provide a snapshot of computer uses and needs among students and staff in the Kern Community College District at a particular time (March, 1995). The data compiled from the survey responses can be and is being used in planning for the future. The Survey gives us a pictures of a college community that is, in the main, computer literate. The Surveys cite the need for better access and more training. Employees emphasize their willingness to be properly trained. The staff provides an enormous resource as the District goes forward with its IT planning and implementation.

Current students are computer literate, are eager to learn more about the many uses of computers, and send us a strong message that the computer looms large in their lives as students, and also in their plans for future study and employment.

ORGANIZATIONAL STRUCTURE

KCCD
KERN COMMUNITY COLLEGE DISTRICT

2100 CHESTER AVENUE
BAKERSFIELD, CA 93301-4099
(805) 395-4100

December 23, 1998

To: Chancellor's Cabinet
Administrators
Information Technology Staffs

From: James C. Young, Chancellor

Subject: **Reorganization of Information Technology**

In August 1998, a small committee was formed, chaired by John Collins, to evaluate the current organization for Information Technology, and to submit recommendations for change.

In October 1998, this committee reported its findings and recommendations to the Chancellor's Cabinet, where a few changes were made, and the revised organizational structure and functions were adopted.

The major changes in the organizational plan for Information Technology are as follows:

1. Employ an Assistant Chancellor for Information Technology.
2. Transfer the responsibility for Instructional Technology back to the Colleges.
3. Define functions as centralized and decentralized.
4. Create a single District-wide Information Technology Committee.
5. Provide an appropriate level of financial support as the new organizational plan is implemented.

The new organizational structure for Information Technology requires a substantial shift in personnel from the District to the Colleges. An Interim Implementation Plan has been developed, and will be put in operation on January 1, 1999. This Interim Plan will function until the new Assistant Chancellor, Information Technology comes on board this Spring, and until the transfer of personnel and other resources are complete.

Provided with this memorandum are copies of the revised chapter on Organizational Structure for the District Information Technology Plan. These

pages, 22-42, should be inserted in existing Plans in lieu of the old chapter on Organizational Structure.

Your attention is directed to pages 35, 36, and 36a where you will find Assigned Functions, a Job Positions Table of Organization, and a Job Positions Interim Implementation Table of Organization.

I have already appointed the Directors for the Infrastructure, Data Base Administration, and Management Information Systems. They are respectively, Carey Allen, David Palinsky, and Mike Budy.

I have asked John Collins to chair the District-wide Information Technology Committee pending the employment of the Assistant Chancellor, Information Technology. The search for this Assistant Chancellor is underway, and a District-wide Screening Committee has been appointed to assist with the selection of this administrator.

A great deal of thought, discussion, and involvement has gone into this reorganization of Information Technology. As implementation takes place; as new needs arise; and as changes are recommended to meet the changing needs of information technology, the Assistant Chancellor, Information Technology, working with the Information Technology Committee, will bring recommendations to the Chancellor's Cabinet for consideration and decisions.

I believe the new plan for the reorganization of Information Technology is worthy of the support of all of us who have responsibilities in this important phase of our operations. Also, I fully expect everyone to work cooperatively and positively in the implementation of this Plan.

Best wishes to all of you for the New Year!

Information Technology

Organizational Structure

A. Introduction

At the heart of any plan for any purpose is an organizational structure. Usually, plans are broad-brush descriptions of goals and perhaps specific objectives, with an organizational structure in place to get the job done. Inevitably the implementation of plans leads to modification. The dynamics of any effort produces the need for change. Things seldom work out as originally envisaged. So the organization that is set up to implement the plan must have the degrees of freedom and the authority to effect change.

After a two year trial period with an organizational structure which featured a Director of Instructional Technology Services and a Director of Administrative Technology Services, each with its own committee, the Chancellor, on July 28, 1998 appointed a committee to review the Organizational Structure for Information Technology, District-wide, and make recommendations for change, as appropriate, to the Chancellor's Cabinet. This has been accomplished and the sections that follow reflect the Report of the Committee and the adoption of the new structure by the Chancellor's Cabinet on October 29, 1998. The replacement chapter, Organizational Structure, for the Information Technology Plan of the Kern Community College District is set forth in the following pages.

B. Rationale for Change

1) The major weakness in the old Organizational Structure was that Information Technology, District-wide, was divided into Instructional Technology Services and Administrative Technology Services with no single leader for all of Information Technology.

   To correct this weakness, Information Technology will be organized as a single entity, with a District-wide leader who will be responsible for managing, facilitating and coordinating Information Technology District-wide.

   With this configuration, communication will be improved, duplication of efforts will be ameliorated, and accountability will be fixed.

2) Consistent with the recommendation to have one District-wide leader for Information Technology, a single Information Technology Committee to consider District issues and make recommendations with respect to Information Technology is created.

   As needs arise, ad hoc subcommittees may be formed to consider specific issues and return to the Information Technology Committee with recommendations.

3) Another fault in the old Organizational Structure was a lack of control of Information Technology by campus-level leaders at the Colleges, and a serious need to decentralize certain components of Information Technology to the campuses.

   In the section of this chapter on Centralization and Decentralization, specific steps are taken to delineate functions between the District and the Colleges.

4) The current organizational structure for Information Technology, with two directors, but no single administrator in

charge has produced a level of tension and anxiety that is not conducive to high productivity and harmony.

5) In stating the above rationale for change, the District recognizes positive accomplishments during the first two years of the current organizational structure. These achievements are cited here to emphasize the value of having an Information Technology Plan that calls for sharing and coordination of efforts. Some of these successes follow:

   a) The existence of a Plan for Information Technology has had a positive influence; there has been a more orderly approach to the development of Information Technology.

   b) The Colleges are in better communication with each other, and there is an improved sharing of information and practices taking place.

   c) District-wide standards for Information Technology have been developed, implemented, and changed as needs arose.

   d) There has been an improvement in the infrastructure that serves Information Technology.

   e) Issues such as Computer Use Policies and the adoption of a single office suite for word processing have been faced and resolved.

   f) An Information Technology Security Plan has been developed and adopted.

C. <u>Centralization-Decentralization</u>

1) Going back for at least 25 years the components of Information Technology that relate to Administration have, in general, been centralized at the District.

2) During this same period, until recently, Instructional Technology had been a function of the Colleges as a part of their regular instructional programs.

3) With the adoption of the Information Technology Plan in 1996, Instructional Technology was centralized at the District with a Director and staff. Most of the personnel assigned to this staff were located at the Colleges, but reported to the District Director.

4) Before recommending a new Organizational Structure it is prudent to categorize the major functions of Information Technology with respect to centralization-decentralization. These follow:

CENTRALIZED
Infrastructure
Telecommunications
Broadcast Engineering
Standards
District-wide Information Technology Committee
Security
Systems and Internet Administration
BANNER
Network Administration
Training
Data Base Administration

DECENTRALIZATION
Instructional Technology
Campus Information Technology Support
Audio Visual
On-line Courses
Campus Information Technology Committee
Distance Education – ITV*
Media Production*

***To serve all three Colleges through sharing and coordination by the responsible Administrator at Bakersfield College.**

In this new Organizational Structure the Centralized functions are assigned to the District and the Decentralized functions are assigned to the Colleges. However, there is a certain overlapping of these functions, e.g., infrastructure is centralized as a District responsibility, but a substantial portion of the infrastructure is on the college campuses. Also, with respect to these delineations, BANNER as a District responsibility will cut across many lines at both the District and the Colleges. By the same token, Instructional Technology is assigned to the Colleges, but sharing and coordination in this area should take place through the District-wide Information Technology Committee.

It is, therefore, expected that there will be a firm commitment on the part of all participants to the sharing of ideas, plans, facilities, and resources.

5) Proposals for changes in any of the elements or protocols of Information Technology that have been assigned to the District as "centralized" will be brought by the Colleges/District to the District Information Technology Committee for consideration and recommendation.

D. Leadership

1) This section of the Information Technology Plan focuses only on leadership at the District level. The Colleges will also have their organizational structures and functions for Information Technology.

2) This Plan for Reorganization recommends the establishment of an Assistant Chancellor for Information Technology to direct all District-level Information Technology services, and to work through the District Information Technology Committee to coordinate and support efforts being made by the Colleges in the area of Information Technology.

3) At the District level there will be four major components of Information Technology, each with a leader who reports

directly to the Assistant Chancellor for Information Technology. These subordinate areas are as follows:

Infrastructure
Applications
Data Base Administration
Management Information Systems (MIS)

4) As soon as this reorganization of Information Technology Plan is adopted, the Colleges will be in a position to review their respective organizations, identify leadership responsibilities, and make it a matter of record where responsibilities are assigned and accountability is established.

   Information Technology Committees will be established and function at the College-level making recommendations to the respective College administrations, and to the District Information Technology Committee.

5) There will be a single District-wide Information Technology Committee whose General Charge, Functions, and Composition are set forth below:

   GENERAL CHARGE

   The Information Technology Committee is a District-wide committee representative of the Colleges/District and chaired by the Assistant Chancellor, Information Technology. This committee will consider and act upon issues, concerns, policies, and procedures related to the orderly development and implementation of Information Technology District-wide. The Chair will work with a sub-committee of representatives' (3), one from each College, to set the agenda for the meetings.

FUNCTIONS

- Provide a forum, on a regular and on-going basis, for the sharing of efforts and concerns of the Colleges/District as these relate to Information Technology, and make recommendations for improvement of services.

- Monitor the implementation of the District's Information Technology Plan and recommend changes as appropriate.

- Participate in the planning and implementation of a program of in-service training related to Information Technology.

- Consider and prioritize major operational changes that relate to the delivery of instruction and services in the area of Information Technology.

- Periodically review and evaluate the organizational structure for Information Technology and recommend changes to provide more efficient and effective services.

- Consider and make recommendations related to standards for both hardware and software to be adopted District-wide.

- Serve as the clearinghouse for the resolution of problems arising out of the functioning of the infrastructure, and make recommendations for change as appropriate.

- Consider budgetary issues at the District and at the three Colleges and make efforts to coordinate

expenditures in order to provide the best services affordable.

- Consider and make recommendations regarding any proposed change to the elements or protocols of Information Technology that have been assigned to the district as "centralized, " or to the Colleges as "decentralized."

COMPOSITION

- Three representatives from each of the three Colleges.

- Four representatives from the District, one of whom will be the Assistant Chancellor and Chair.

6) The job description, responsibilities, and qualifications of the Assistant Chancellor, Information Technology are set forth below:

GENERAL RESPONSIBILITIES

The Assistant Chancellor, Information Technology, shall be directly responsible to the Chancellor for the full development and implementation of Information Technology Services for the Colleges/District. Following are examples of duties to be performed by the Assistant Chancellor:

EXAMPLES OF DUTIES

- Chair the District-wide Information Technology Committee, working with a sub-committee of representatives, one from each College, in setting the agenda and reviewing the minutes.

- Chair the Information Technology Security Committee and provide leadership for the monitoring and implementation of the Security Plan.

- Serve on the Chancellor's Cabinet to represent issues and concerns related to Information Technology and how these concerns and issues impact the Colleges and the District.

- Responsible for directing the Information Technology Organization at the District level, and providing a forum for the coordination and collaboration of Information Technology efforts among the Colleges/District.

- Support the Colleges in their efforts to use Information Technology for both instruction and services to students.

- Serve as Information Technology liaison with California State University, Bakersfield, the local high school districts, the Kern County Superintendent of Schools Office, and other agencies as appropriate.

- Provide leadership in the refinement and implementation of the District's Information Technology Plan, and the dissemination of any changes to the Plan.

- Supervise the compiling and submitting of all data required by the Management Information Systems (MIS) Unit of the California Community Colleges Chancellor's Office.

- Attend College-based Information Technology Committee meetings upon invitation. Develop an appropriate presence on the campuses that emphasizes service.

- Provide leadership for the full development, implementation and refinement of SCT BANNER.

- Provide leadership in the development, the maintenance, and the use of the Information Technology infrastructure.

- Take the lead in exploring and implementing opportunities for sharing resources, expertise, and programs developed by the Colleges/District.

- Represent the KCCD at appropriate regional, state, and national meetings.

- Recommend to the Chancellor's Cabinet policies and procedures related to Information Technology after due deliberation of the Information Technology Committee.

- Provide access to data for research and development and for reporting purposes.

- Prepare agenda items for the Board of Trustees relating to Information Technology that require Board action; and also arrange for Board reports from the Colleges/District regarding Information Technology.

- Provide leadership for the development and implementation of a plan for training Information Technology personnel, and provide training services to other users of Information Technology.

- Take the lead in developing a District-wide comprehensive inventory of Information Technology equipment and other resources.

- Evaluate Information Technology personnel at the District level, and provide in-service training to improve their competencies and services.

- Develop the District-level budget for Information Technology, and coordinate this budget with

college-level budgets through the District Information Technology Committee.

- Develop the facilities and other resources for an effective and useable system of video conferencing.

- Coordinate the development of comprehensive documentation of all District-supported software and hardware.

- Coordinate the development of users manuals referred to in the District Information Technology Security Plan.

- Interface with vendors and other outside companies and agencies as appropriate.

- Coordinate the development of comprehensive documentation of all District software and hardware.

- Perform other duties as assigned by the Chancellor.

QUALIFICATIONS

Minimum Qualifications

Possession of a Masters Degree.

Minimum experience of five years in responsible leadership positions related to Information Technology.

Technically competent in the field of Information Technology.

Desired Qualifications

Strong management/people skills.

Effective communication skills–written, oral, and listening.

An understanding of the multi-organizational aspects of large enterprises.

A strong orientation toward satisfying the needs of users.

Practical vision of the potentials of Information Technology in higher education.

Demonstrated ability to delegate and hold accountable those responsible for carrying out the policies and procedures of Information Technology.

E. Organizational Functions and Structure

1) The Organizational Functions and Structures that follow reflect the major guidelines noted below:

   a) Bring all of Information Technology under one tent under the leadership of an Assistant Chancellor, Information Technology.

   b) Decentralize the instructional aspects of Information Technology.

   c) Use the District Information Technology Committee to share successes, and resolve problems.

   d) Make recommendations to the Chancellor's Cabinet in the arena of official policies and procedures related to Information Technology.

2) It was determined that the most easily understood District organizational plan would combine function and structure. Noted then, on the next pages are two Tables of Organization, the first showing major structure with subsumed functions, and the second displaying major structure with subsumed actual job positions.

   It is acknowledged that existing job titles and/or job descriptions will probably change with experience, but it is

also felt that these changes can be made by the new Assistant Chancellor working with the District Information Technology Committee.

The Assistant Chancellor will also have to deal with the need for additional staff, particularly in the areas of Internet support, BANNER, and research and development. The Assistant Chancellor is also urged to explore other strategies for providing Information Technology Services, including contracting with outside agencies.

3) There follows, then, the two Tables of Organization, one emphasizing functions, and the other concentrating on job positions. It can be seen that these functions and positions fit under the main four categories of Infrastructure, Applications, Data Base Administration, and Management Information Systems; all of which report to the Assistant Chancellor, Information Technology.

4) **Following the two Tables of Organization noted above, is an Interim Implementation Table of Organization that will be in effect until the new Assistant Chancellor reports for duty, and until funds are available for a full implementation of the Organizational Structure noted on page 35.**

KERN COMMUNITY COLLEGE DISTRICT
INFORMATION TECHNOLOGY ORGANIZATION

ASSIGNED FUNCTIONS

ASSISTANT CHANCELLOR INFORMATION TECHNOLOGY

DISTRICT INFORMATION TECHNOLOGY COMMITTEE

- BAKERSFIELD COLLEGE
- CERRO COSO COLLEGE
- PORTERVILLE COLLEGE

INFRASTRUCTURE

- Systems Administration
  - Security
  - Domains/DNS
  - Unix NT
  - ISP Mail Servers
- Internet/Intranet Servers
  - Web
  - Chat
  - Mail
  - News
  - FTP
  - Front Page
- LANS/WANS
  - Routers
  - Switches
  - Hubs
  - Servers
- Telecommunications
- Broadcast Engineering

APPLICATIONS

- Invest 2000 [1]
- Training, Development & Support [2]
- Other Centralized Software Systems [2]
- Licensing & Support of Electronic Reference Software [1]
- Systems Analysis /Programming [2]
- Records Management/Data Imaging [3]
- Schedule/Load [2]
- Inventory [1]
- Help Desk [2]

On an interim basis, until a Director of Applications is appointed, the Functions noted under Applications will be performed as indicated by the sub-numbers as follows:

#1 – To Infrastructure

#2 – To Data Base Administration

#3 – To Management Information Systems

DATA BASE ADMINISTRATION

- Documentation
- Data Base Management
- Security

MANAGEMENT INFORMATION SYSTEMS

- Student
- Human Resources
- Finance
- Accounts Receivable
- Financial Aid
- Web
- Alumni Development
- Security
- Reporting, Including MIS

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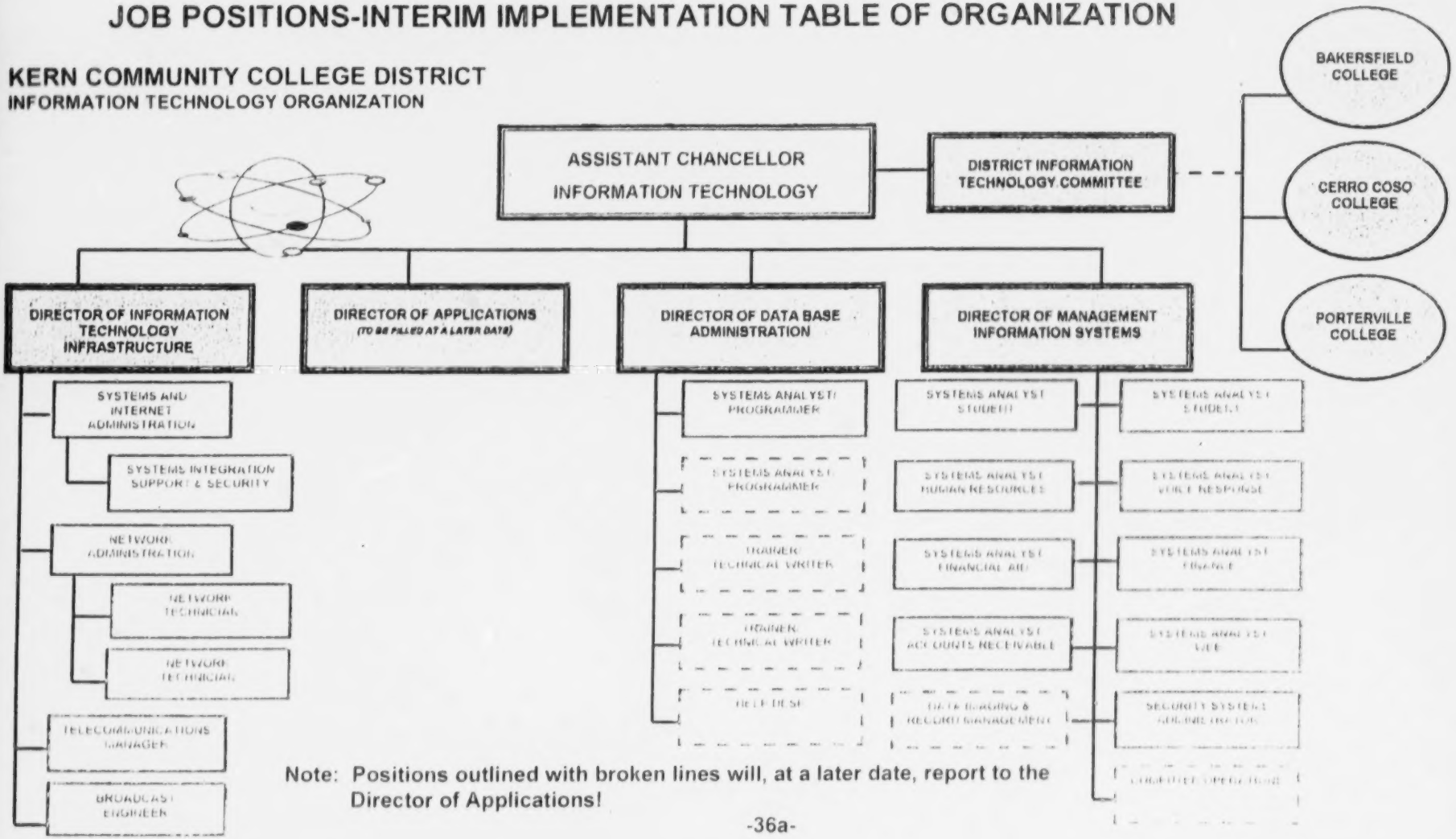
JOB POSITIONS TABLE OF ORGANIZATION

KERN COMMUNITY COLLEGE DISTRICT
INFORMATION TECHNOLOGY ORGANIZATION

- ASSISTANT CHANCELLOR INFORMATION TECHNOLOGY
  - DISTRICT INFORMATION TECHNOLOGY COMMITTEE
    - BAKERSFIELD COLLEGE
    - CERRO COSO COLLEGE
    - PORTERVILLE COLLEGE
  - DIRECTOR OF INFORMATION TECHNOLOGY INFRASTRUCTURE
    - SYSTEMS AND INTERNET ADMINISTRATION
    - SYSTEMS INTEGRATION SUPPORT & SECURITY
    - NETWORK ADMINISTRATION
    - NETWORK TECHNICIAN
    - NETWORK TECHNICIAN
    - TELECOMMUNICATIONS MANAGER
    - BROADCAST ENGINEER
  - DIRECTOR OF APPLICATIONS *TO BE FILLED AT A LATER DATE*
    - TRAINER/ TECHNICAL WRITER
    - TRAINER/ TECHNICAL WRITER
    - COMPUTER OPERATIONS
    - SYSTEMS ANALYST/ PROGRAMMER
    - DATA IMAGING & RECORD MANAGEMENT
    - HELP DESK
  - DIRECTOR OF DATA BASE ADMINISTRATION
    - SYSTEMS ANALYST/ PROGRAMMER
  - DIRECTOR OF MANAGEMENT INFORMATION SYSTEMS
    - SYSTEMS ANALYST STUDENT
    - SYSTEMS ANALYST HUMAN RESOURCES
    - SYSTEMS ANALYST FINANCIAL AID
    - SYSTEMS ANALYST ACCOUNTS RECEIVABLE
    - SYSTEMS ANALYST STUDENT
    - SYSTEMS ANALYST FINANCE
    - SYSTEMS ANALYST WEB
    - SECURITY SYSTEMS ADMINISTRATOR

JOB POSITIONS-INTERIM IMPLEMENTATION TABLE OF ORGANIZATION

KERN COMMUNITY COLLEGE DISTRICT
INFORMATION TECHNOLOGY ORGANIZATION



Note: Positions outlined with broken lines will, at a later date, report to the Director of Applications!

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F. Deployment of Staff–Instructional Technology

1) Prior to this Revised Organization Structure, in the area previously called Instructional Technology Services, 21.3 positions were assigned to the District.

2) In this Revised Plan, nine of the 21.3 positions continue to be assigned to the District; 10.3 are assigned to Bakersfield College, two are assigned to Cerro Coso College; and two are assigned to Porterville College. This is a net increase to 23.3 positions, not all of which are filled, pending funding.

3) In the deployment of staff as noted above, job titles and assignment of personnel will be reviewed and determined by the Chancellor and the College Presidents.

4) What has been called Instructional Technology Services will become an integral part of the instructional programs at each of the Colleges with the appropriate transfer of funds, resources, and personnel to the campuses. The position of District Director of Instructional Technology is eliminated.

G. Deployment of Staff-Administrative Technology Services

1) Prior to this Revised Organizational Structure, in the area previously called Administrative Technology Services, twenty-one positions were assigned to the District.

2) In this Revised Plan, seventeen of the twenty-one positions continue to be assigned to the District; two are assigned to Bakersfield College; one is assigned to Cerro Coso College, and one is assigned to Porterville College.

3) In the deployment of staff as noted above, job titles and assignment of personnel will be reviewed and determined by the Chancellor and the College Presidents.

4) Administrative Technology functions as noted on the Table of Organization–Functions, will continue to be provided by the District. However, the position of Director of Administrative Technology Services is eliminated as noted on the Table of Organization–Positions. The Network Technicians who previously were assigned to the District, but located on the campuses, are now assigned to the campuses. However, it is the intention of this revised plan that close coordination be continued between these Network Technicians and the appropriate District personnel in order to maintain the integrity of the District Infrastructure and provide integrated services.

H. Financial Resources

1) As noted previously, it is the intention of this new plan, in transferring responsibilities from the District to the Colleges, to also transfer to the campuses personnel, funds, and other resources necessary for carrying out these responsibilities.

2) The details of these transfers will have to be worked out by the Assistant Chancellor of Information Technology with the help of the Information Technology Committee.

3) During this period of transition, the re-location of personnel, equipment, and other resources will take place in a timely manner, and in the best interests of the entire District.

I. Performance Outcomes

1) The development and implementation of Performance Outcomes is one of the responsibilities of the Assistant Chancellor, Information Technology working with the District Information Technology Committee.

2) With respect to Performance Outcomes, these will be developed for the agreed upon District Centralized Functions, the Colleges Decentralized Functions, and the effort will be coordinated by the Assistant Chancellor.

J. Communication

1) One major goal of the Kern Community College District Information Technology Plan is to establish clear and effective channels of communication for Information Technology. For this Plan to function, interaction and communication will be taking place at a number of levels to develop proposals; to consider proposals; to hear concerns; to resolve problems; and to make decisions. Described in this section is a two-way communication system that should enhance the implementation of the Kern Community College District Information Technology Plan.

2) Each College will appoint and convene a committee concerned with the planning and development of Information Technology.

3) These College committees and the District-wide Information Technology Committee will work together to enhance communication and coordination.

4) The Colleges will each have three representatives on the District Information Technology Committee.

5) These representatives will assist in bringing College concerns and recommendations to the District-wide Committee, and in turn, will help communicate to the College committees the major issues discussed and decisions taken by the District-wide Committee.

6) The College committees will develop their own Information Technology Plans which will be designed to meet College needs and mesh with the District Information Technology Plan.

7) It is anticipated that the College Information Technology Committees will address the following issues as well as others that may be identified by the Colleges:

- ◊ Identify College concerns and needs relative to Information Technology and share these as appropriate with the District-wide Information Technology Committee.

- ◊ Propose District-wide policies and procedures for review and action by the District-wide Information Technology Committee.

- ◊ Review and respond to proposals being considered by the District-wide Information Technology Committee.

- ◊ Provide a forum for discussion and sharing of Information Technology issues which may lead to recommendations at the College or District levels.

- ◊ Review proposals for the purchase of infrastructure equipment that deviate from adopted District Standards. Deviations that are approved by the College Information Technology Committee will be taken forward to the District-wide Information Technology Committee for review before purchase.

- ◊ On a regular basis assist the District-wide Committee in an evaluation of the District Information Technology Plan, including but not limited to the following major sections of the Plan:

  - Mission
  - Guiding Principles

- Organizational Structure
- Infrastructure
- Services to Students
- Services to Staff
- Use Policies
- Distance Education
- Financing Information Technology

K. Summary

- The changes embodied in this revised Organizational Structure of The Kern Community College District Information Technology Plan will be implemented during the Spring semester, 1999.

- Evaluation of the new structure and functions will take place on a continuing basis by the District Information Technology Committee.

- Recommendations for further changes will, after approval by the Information Technology Committee, go to the Chancellor's Cabinet for adoption.

Approved: Reorganization Committee — *October 1, 1998*
Adopted: Chancellor's Cabinet — *October 26, 1998*

INFRASTRUCTURE

Information Technology

Infrastructure

Introduction

The infrastructure is the highway of information technology. It provides for the transmission of voice, data, and video between District and the Colleges, and within each of the Colleges and also their respective Centers.

As shown in the schematics that follow, the infrastructure includes the mainframe and supporting equipment, routers, network backbone, cabling, personal computers, the telephone system, and video conferencing equipment. The installation and maintenance of a sophisticated infrastructure is an absolute necessity for the development of information technology in the Kern Community College District.

An infrastructure has been functioning in the District for thirty years. It grew like topsy as demands were made upon it first for administration, and only recently for instruction. Upgrading of the infrastructure has been going on as changes took place in the technology of transmission of voice, data, and video. These changes have been very uneven due to demand for services, budgetary priorities, and knowledge of technical potentials. It has been difficult, for openers, to even describe the existing infrastructure. However, in the schematics which follow what exists now and what is planned for the future with respect to the infrastructure are set forth accurately.

At the Information Technology Retreat in September 1994 the group was told that the District's infrastructure was close to completion. Upon closer examination, it was determined that much remained to be put in place before it could be said that the infrastructure provides the connections and equipment required. Since the Retreat, ITTF, the District Director of Administrative Technology, the Colleges, and the District have all been concerned with the current state of the infrastructure, plans for the future, and installation issues. In November 1995 funds were provided by the District to purchase and install additions to the infrastructure that have been identified as necessary. By September 1996 it is anticipated that the infrastructure plans as noted in the schematics will be in place and operative.

Schematics

Until November 1995 the existing infrastructure schematics were incomplete. ITTF had been concerned about plans for the infrastructure, and late in 1995 drafted the first comprehensive schematics of the current status and future plans. These schematics went through a number of drafts with additions, deletions, and clarifications.

The schematics presented in this IT Plan are for the three Colleges, their respective Centers, and for the District. Displayed are existing lines and equipment as well as those proposed. The color coded schematics permit staff to see at a glance what exists and what is planned for the Kern Community College District infrastructure. It is anticipated that the few "stand-alone" installations will eventually be tied in to the backbone. It is the intention of ITTF that these schematics as well as architectural drawings will be kept current and on file at the District Office.

Standards

In developing and adopting the infrastructure standards which follow in this section it is the intention of ITTF to standardize infrastructure acquisition and installation so as to insure compatibility, quality control, and economy.

These standards have gone through many drafts, have been reviewed by appropriate staff at the Colleges and at the District. Upon adoption, it is intended that deviation from these standards will only be permitted after following the due process set forth in this section of the Kern Community College District IT Plan.

Change

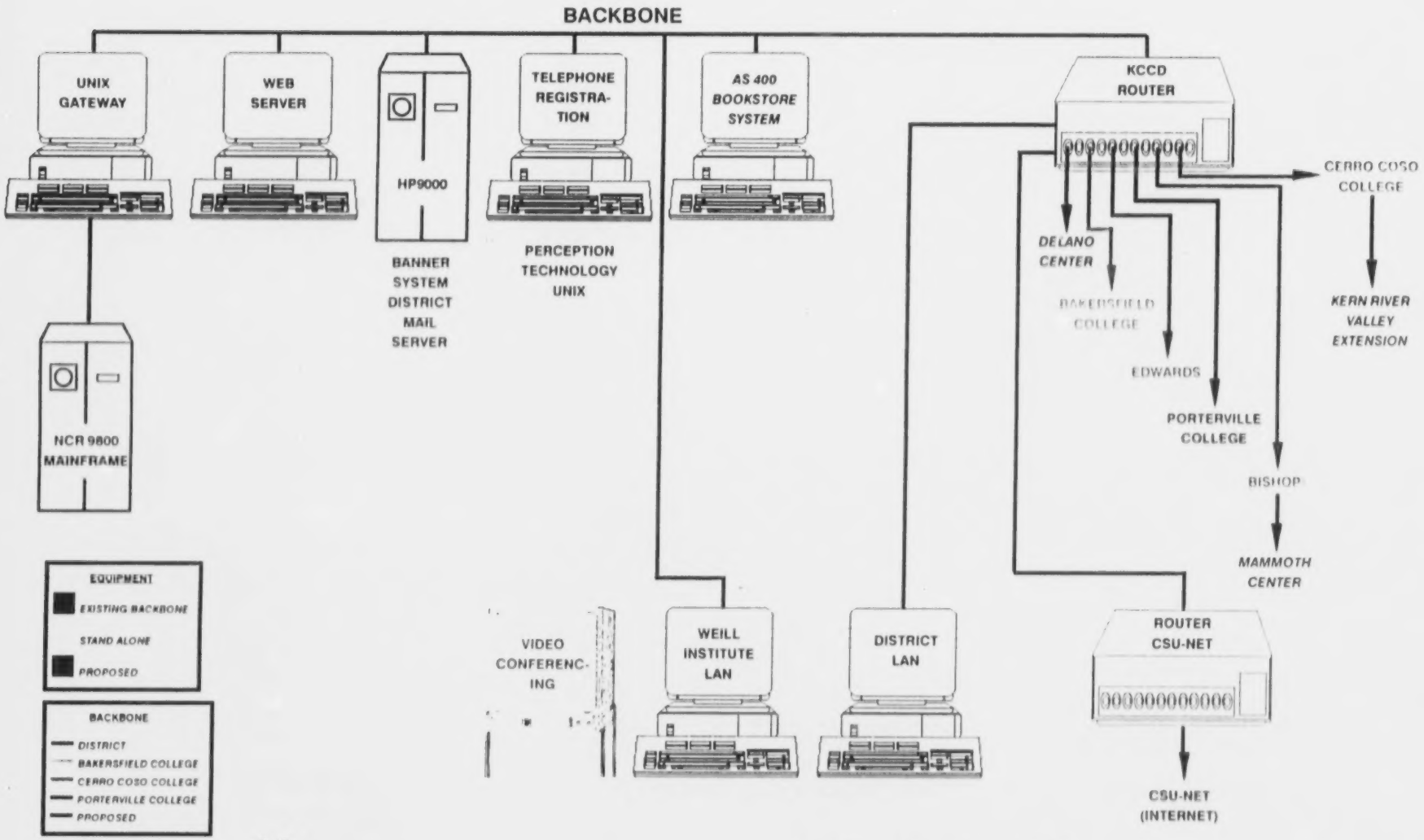
It is anticipated that infrastructure schematics and standards which follow in this section will change as new demands are made on the system, and as new technology becomes available and affordable.

It is the intention of ITTF that this inevitable change will take place in an orderly manner, and that it will be made a matter of record. One important by-product of effective planning is to provide avenues for effecting change that are agreed upon, recommended, approved, and implemented. Compatibility, affordability, quality control, and precise record keeping are the sine quo non of any changes that are made with respect to the infrastructure.

Set forth in this document are the procedures to be followed in effecting changes in the infrastructure.

KERN COMMUNITY COLLEGE DISTRICT

DISTRICT WIDE AREA NETWORK



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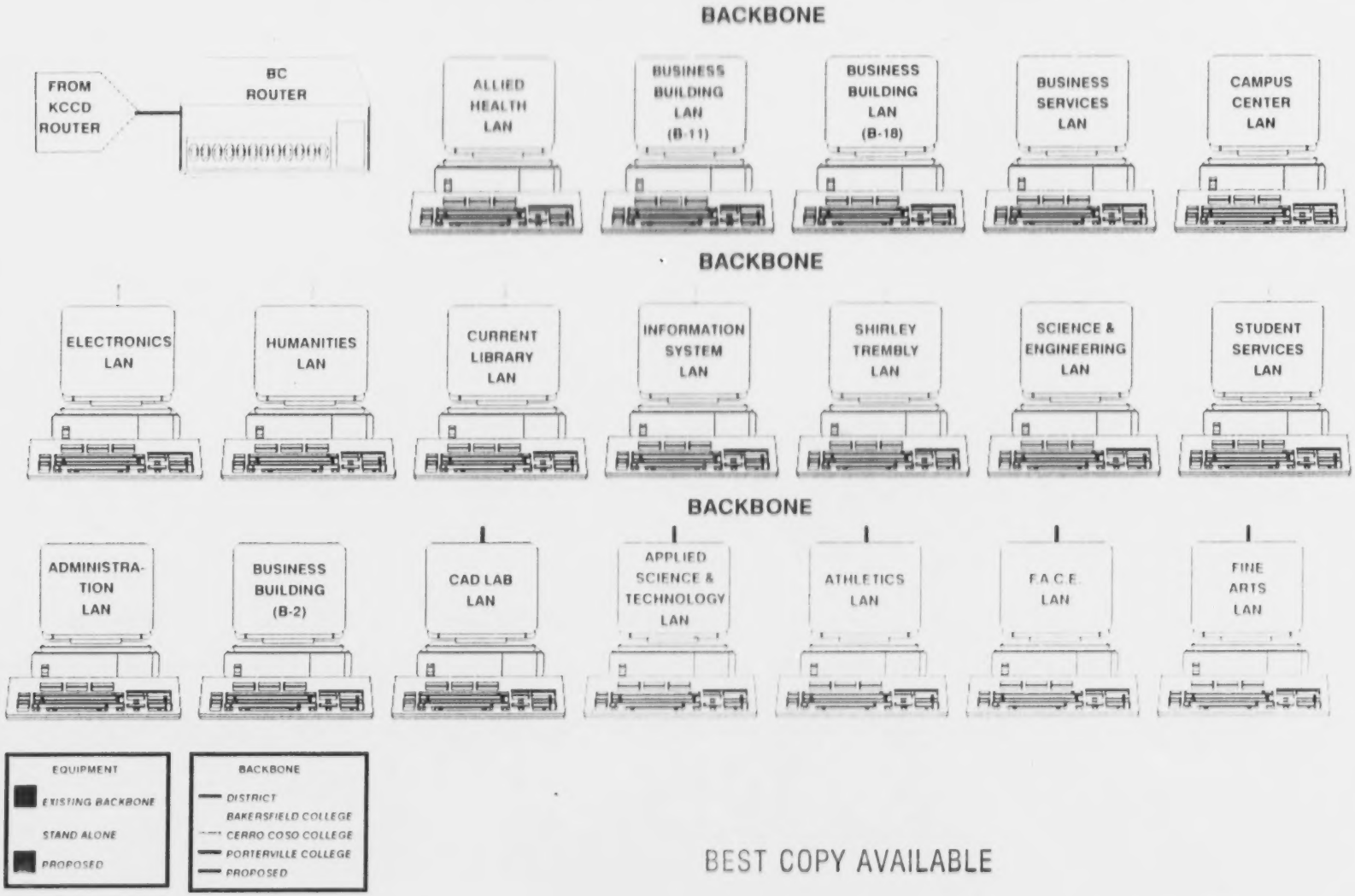
Approved: ITTF; February 26, 1996

KERN COMMUNITY COLLEGE DISTRICT

BAKERSFIELD COLLEGE WIDE AREA NETWORK



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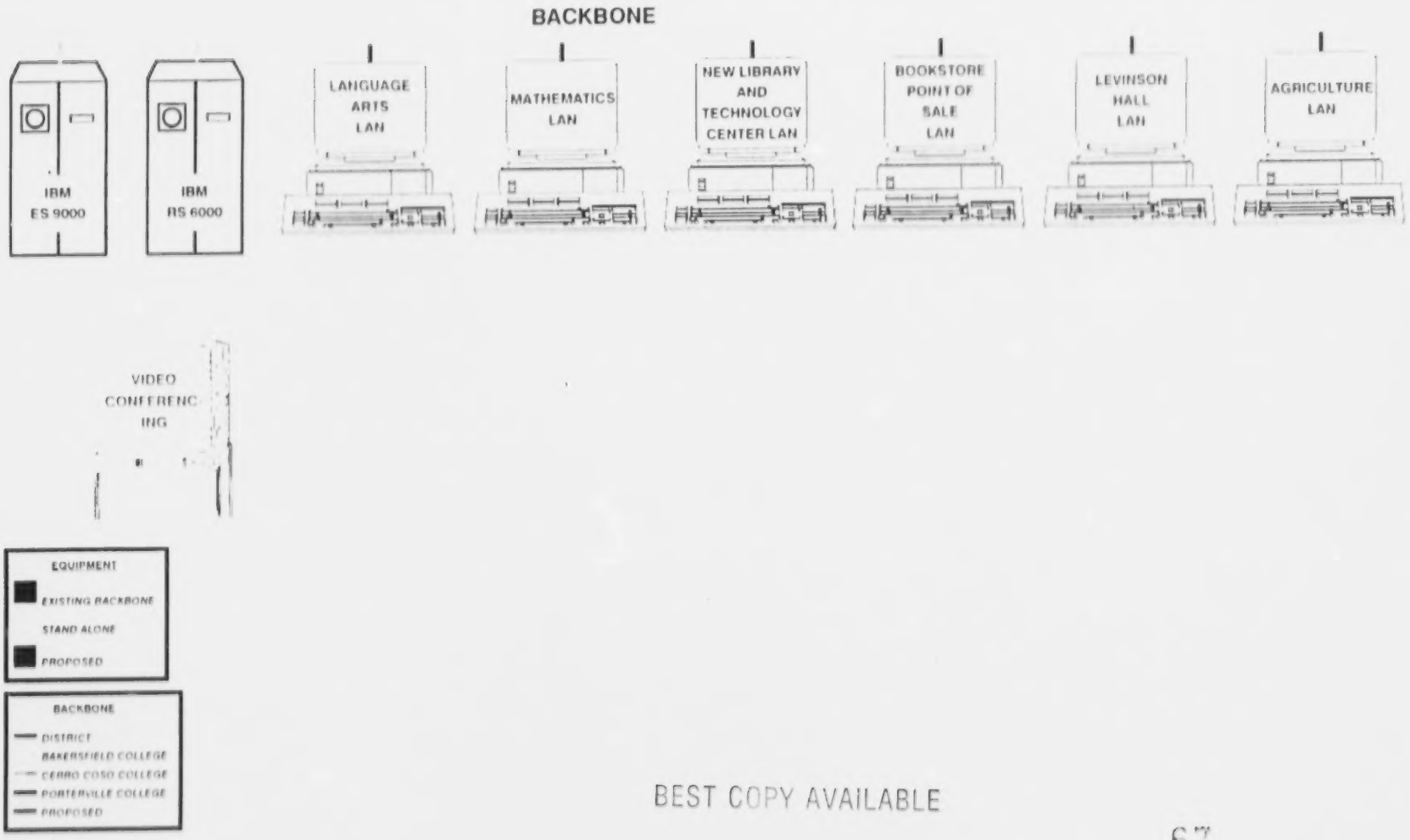
Approved: ITTF: February 26, 1996

BAKERSFIELD COLLEGE WAN (CONTINUED)



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KERN COMMUNITY COLLEGE DISTRICT
DELANO CENTER WIDE AREA NETWORK

EQUIPMENT

EXISTING BACKBONE

STAND ALONE

PROPOSED

BACKBONE

DISTRICT

BAKERSFIELD COLLEGE

CERRO COSO COLLEGE

PORTERVILLE COLLEGE

PROPOSED

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Approved: ITTF: February 26, 1996

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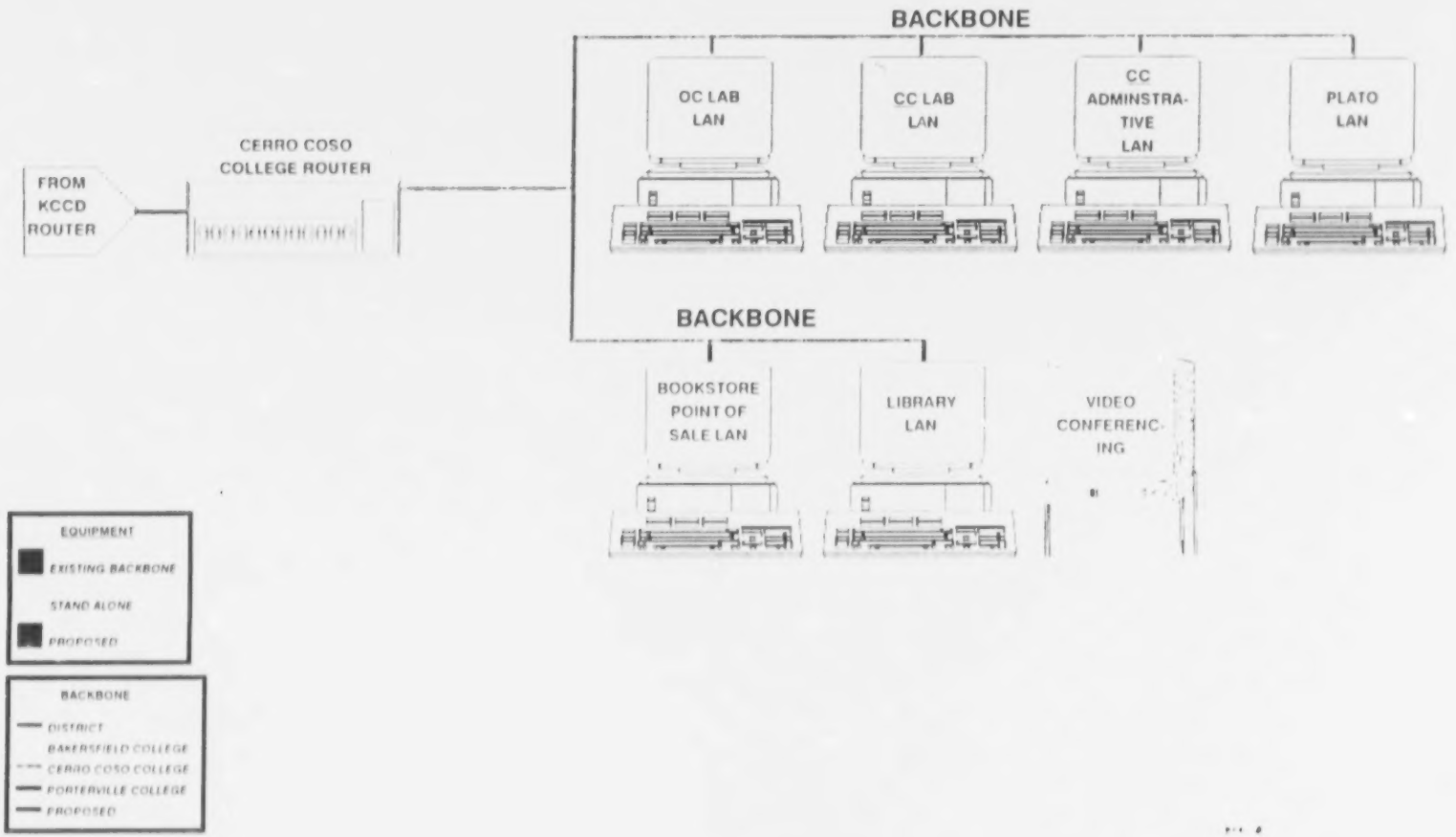
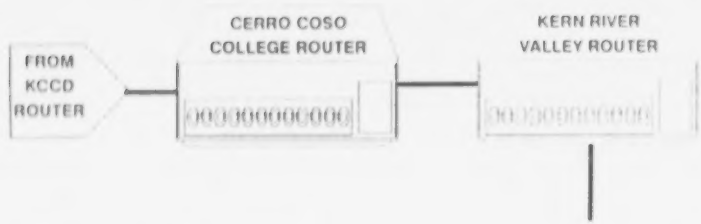
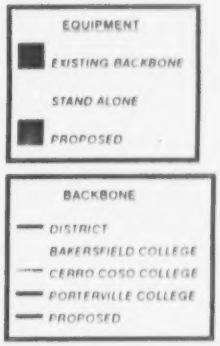
KERN COMMUNITY COLLEGE DISTRICT
CERRO COSO COLLEGE WIDE AREA NETWORK



Approved: ITTF, February 26, 1996

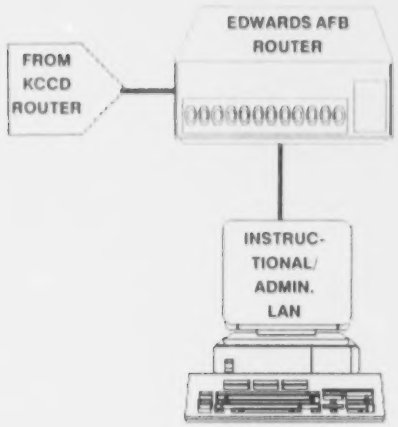
KERN COMMUNITY COLLEGE DISTRICT
KERN RIVER VALLEY EXTENSION WIDE AREA NETWORK





Approved: ITTF; February 26, 1996

KERN COMMUNITY COLLEGE DISTRICT
EDWARDS AIR FORCE BASE WIDE AREA NETWORK



EQUIPMENT
- EXISTING BACKBONE
- STAND ALONE
- PROPOSED

BACKBONE
- DISTRICT
- BAKERSFIELD COLLEGE
- CERRO COSO COLLEGE
- PORTERVILLE COLLEGE
- PROPOSED

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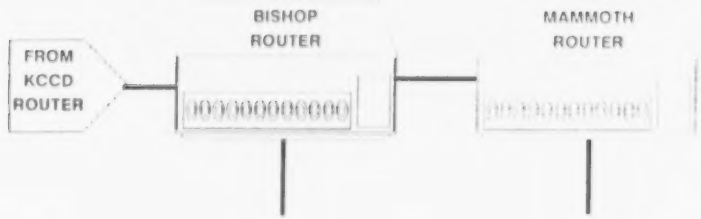
Approved: ITTF; February 26, 1996

KERN COMMUNITY COLLEGE DISTRICT
BISHOP/MAMMOTH CENTER WIDE AREA NETWORK

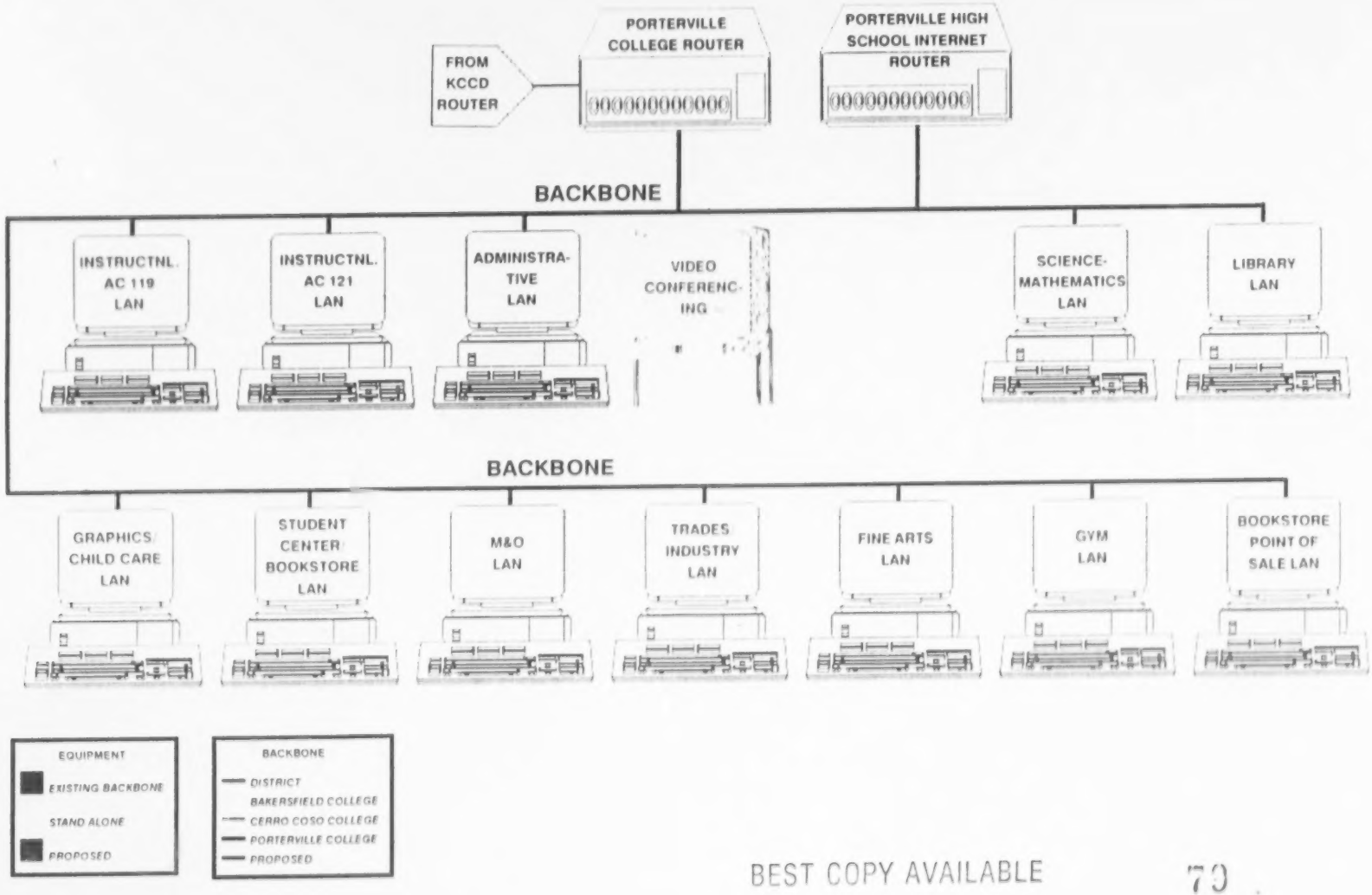


EQUIPMENT
- EXISTING BACKBONE
- STAND ALONE
- PROPOSED

BACKBONE
- DISTRICT
- BAKERSFIELD COLLEGE
- CERRO COSO COLLEGE
- PORTERVILLE COLLEGE
- PROPOSED

KERN COMMUNITY COLLEGE DISTRICT

PORTERVILLE COLLEGE WIDE AREA NETWORK



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Approved: ITTF; February 26, 1996

Information Technology

Infrastructure Standards and Desired Qualities

A. Introduction

1. Infrastructure standards as used in this document refer to telephone equipment and lines, network topology, cabling, personal computers, laptop computers, equipment for distance education, and equipment for video conferencing.

   At a later date, additional standards for software may be developed and adopted.

2. As the information technology infrastructure is developed, installed, and/or replaced, it is important to have previously agreed upon standards for this equipment for purposes of quality control. In every instance, of course, cost becomes a factor.

   Current District infrastructure is not completely consistent with the standards noted in this document. As new infrastructure is installed, or old infrastructure replaced, the standards noted in this document are to be followed.

3. It is the intention of the Kern Community College District that in the acquisition of infrastructure equipment, and in the installation of a comprehensive infrastructure system, that the following are the guiding principles which should be taken into account:

   a) Compatibility
   b) Reliability of performance
   c) Service capabilities
   d) Quality control
   e) Product firm is well established with a good track record for supporting their product, the likelihood of continuing operations, and customer access to research and development departments.
   f) Potential for developing partnerships with product firms advantageous to the Colleges and the District.

4. The standards that follow must be adhered to unless there are compelling reasons for deviation. Deviation from these standards becomes a matter for consideration by the District Information Technology Committee.

B. Standards

1. Telephones

a) When arranging for telecommunications, the Kern Community College District will opt for the fastest transmission mode available that the District can afford. These modes are for voice, data, video, compressed video and telephone transmissions.

b) Telephone equipment is to be standard with each campus system and is to be compatible District-wide.

c) The District is responsible for communication system hardware installation, maintenance, and compatibility. Therefore, all new installations, replacements, and/or changes in telecommunications equipment must have the approval of the District Manager of Telecommunications Services. Appeals from his/her decision will be made to the Assistant Chancellor for Information Technology.

2. Network Topology

a) For the Backbone Network, Asynchronous Transmission Mode (ATM) is the standard topology.

b) For the Local Area Network, ATM ~~is the standard topology:~~ **and/or switched Ethernet are** the standard **topologies.**

c) For the Wide Area Network, the District has as a goal the implementation of the ATM standard.

3. Cabling

All cabling will be consistent with EIA/ITIA-568B STANDARDS, published by the American National Standards Institute. This document is on file with the Assistant Chancellor for Information Technology.

District cabling minimum standards are as follows:

a) Fiber optics for all backbone installations.

b) Category 5 (CAT 5) for all other cabling installations. Deviations from these cabling standards must be referred to the Assistant Chancellor for Information Technology who may take the issue to the Information Technology Committee.

4. Personal Computers/Workstations

a) In this section all deviations from minimum standards, and all deviations from Bus and/or operating systems must be approved, prior to purchase, through channels designated by the Colleges, in the case of College purchases, or channels designated by the Chancellor in the case of District purchases.

Note:

Deviations recommended by College or District channels will be referred to the District Information Technology Committee for review before purchase.

b) To simplify the maintenance and connectivity issues, general purpose computers will be ordered from one of the following vendors:

1) Gateway
2) IBM
3) Hewlett Packard

c) **Minimum standards for the computers noted above are as follows:**

1) ~~64~~96 MB RAM
2) ~~166 MHZ~~ MMX Pentium
3) PCI and ISA Bus for card compatibility
4) ~~2~~ 4 GB Hard Drive Storage
5) 8X CD ROM Drive

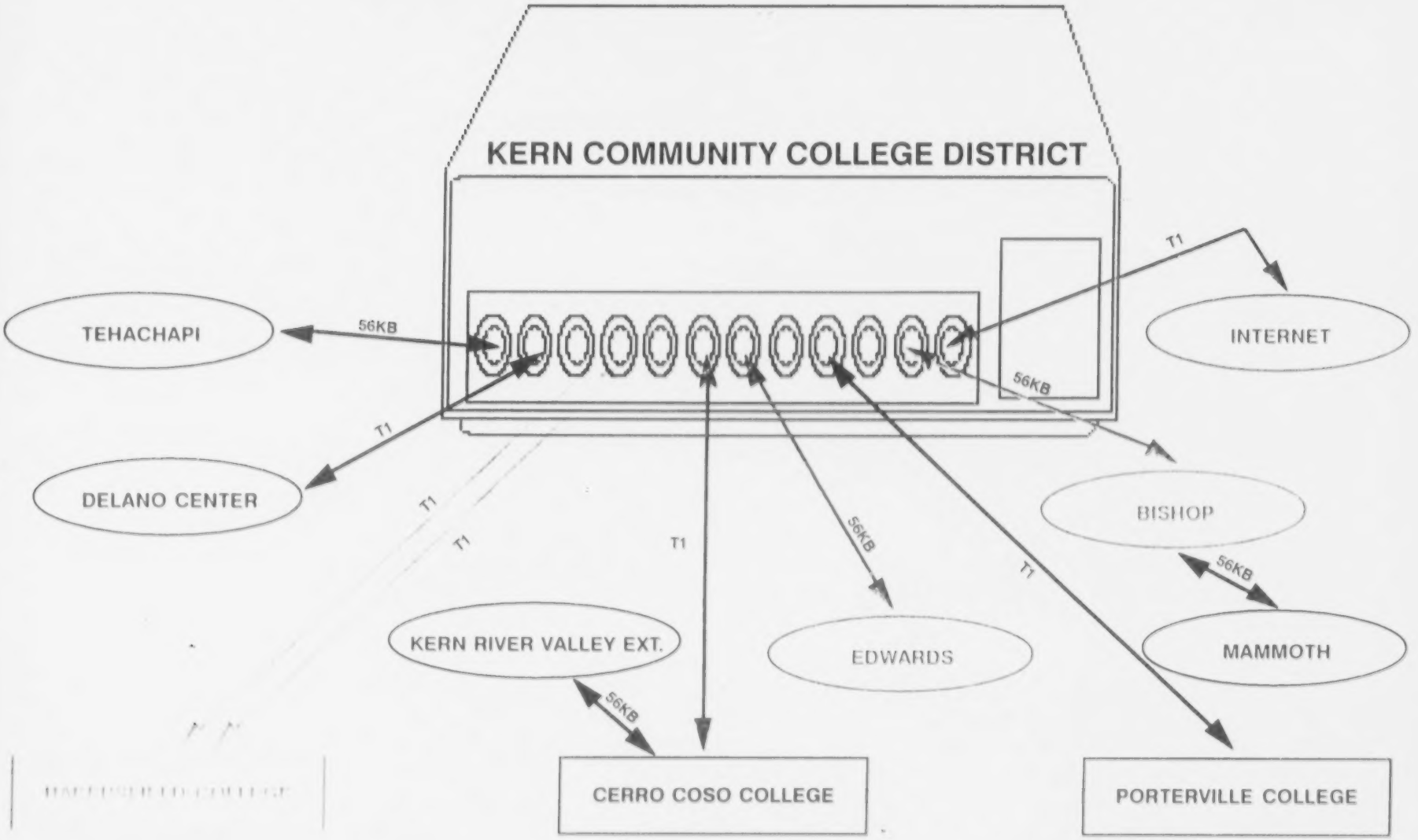
d) In the purchase of personal computers, other factors that should be taken into account are:

1) Compatibility with the installed infrastructure.
2) Standard published ratings of equipment reliability and company service.
3) Durability of equipment under conditions of use by students.
4) In addition, when choosing a vendor the following should be considered:

   a) Access to research and development departments.
   b) Free consultation and planning assistance from company researchers, developers, and engineers.
   c) A well established training program.
   d) Quality of trouble shooting services.
   e) Customer input into the creation of new products.
   f) Inclusion in educational and training events sponsored by the firm.
   g) The opportunity to adopt leading edge technologies at an early date.
   h) Possible donation of equipment.
   i) Eligibility for grants.
   j) On site three year extended warranty.

e) For computer monitors, the **minimum standard** will be:

1) 15"
2) .28 dpi



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Approved: ITTF; February 26, 1996

f) For printers, the **minimum standard** will be:

1) Hewlett Packard LaserJet
OR
2) Hewlett Packard DeskJet

g) For software/operating systems, the **minimum standard** will be:

1) MS DOS 6.22 or PC DOS 7.0 and Windows 3.11 for Workgroups
OR
2) Windows 95
OR
3) Windows NT 4.0 Workstation

Note:

Prior to ordering a PC with a non-standard operating system, the requisitioner must verify with the Assistant Chancellor for Information Technology or designate that the proposed OS is adequate to support the required function and connectivity.

5. Laptop Computers

a) In the purchase of laptop computers the following **minimum standards** must be met:

1) ~~166 MHZ~~ MMX ~~processor~~ pentium
2) ~~32~~ 64 MB RAM
3) 2 GB hard drive capacity
4) 1.44 diskette drive
5) Color display

b) Depending on proposed use, the following additional standards are recommended for laptop computers:

1) 8X CD ROM drive
2) PCMCIA Modem 33.6K bps (or faster)
3) Appropriate docking station
4) Three year on-site extended warranty
5) If the laptop will be connected to the campus network, the buyer should check with appropriate campus supervisor for a recommended vendor.

Note:

Deviations from these standards recommended through College or District channels will be referred to the District Information Technology Committee for review before purchase.

c) The purchase of laptop computers should be governed by the following:

1) Initial cost, support cost, and upgrade cost of laptops are all substantially greater than for desktops.
2) Laptops are limited in functionality and expandability compared to desktops.
3) The principal advantage of laptops is portability/convenience. They are most useful as a supplement issued from a pool to be used as a word processor that is easily transportable to meetings, conferences, classrooms, etc., and/or for the purpose of an off-site presentation.

Note:

The purchase and use of laptops for supplemental purposes should be carefully controlled by the Colleges/District.

d) For the reasons noted in "c" above, laptops **should not be purchased in lieu of desktop computers.**

1) If the Colleges/District, after appropriate consideration by their own channels, wish to recommend the purchase of a laptop(s) **in lieu** of a desktop(s), this recommendation will be referred to the District Information Technology Committee for review prior to purchase.

6. **Software Standard**

a) Office Suite Software Standard

1) The Kern Community College District has adopted Microsoft Office Professional as the standard single office suite throughout the District.
2) Training will be provided by the District in Microsoft Office Professional on an on-going basis.
3) The conversion to Microsoft Office Professional will begin immediately with a completion goal of 2000.
4) Applications currently in use will continue to be supported until such time that the user's operating system is upgraded to Windows95, Windows NT 4.0, or above, and Microsoft Office Professional is installed.

b) Implementation Guidelines

1) Funds allotted by the District for office suite software purchase/upgrades will only be used for the adopted District Standard.
2) Workshops provided by the District will only be provided for the District Standard.

3) In-depth user support by the District will only be provided for the District Standard. "Simple" questions related to non-standard software will be addressed by the District, if possible.
4) This software standard will be widely communicated to appropriate staff at the Colleges/District.
5) Procedures and job aides will be created for simplifying the processes of exchanging files (even with non-standard software, where possible.)
6) Individual users wishing to use different software must consult with the campus IT Committee or its designated representatives prior to purchase.
7) Support for the transfer/translation of existing older files to newer formats will be provided during the conversion process.
8) Efforts will continue to be made to provide hardware, software and training to support the implementation of the new standard.

7. **Distance Education: Instructional Television**

All proposals for distance education equipment installations must be presented to the Information Technology Committee for full consideration. In developing proposals, the following minimum standards must be applied:

a) Cameras must be capable of both autotracking and manual control from a room control panel.

b) Cameras must support a resolution of 460 TV lines with an illumination of 6 lux. Examples of cameras (among possible others) that meet these standards are:

1) Parker Vision Presenter Camera-Model PCS-2000-PIA
2) Parker Vision Student Camera-Model SCS-2000-SIA

c) With respect to computers to be used in distance education, the Information Technology Committee must be contacted for current standards.

d) Distance education sites should include the following:

1) Fax
2) Telephone
3) Two way interactive video and audio
4) Audio system must include autogating (filtering system)

e) Monitors must be MultiSync and appropriate to the room.

8. **Video Conferencing**

Proposal for video conferencing equipment installations must be presented to the Information Technology Committee for full consideration. In developing proposals, the following minimum standards must be followed:

a) The system shall be compatible with all H.320 communication specifications and be capable of being transmitted as a digital signal via digital microwave and/or over a T1 land line.

b) The system shall be compatible with the CLI proprietary CTX and CTS Plus algorithms and be able to communicate with CLI Radiance II (Model #8755) systems. Teleimages Smart Rack systems, and Picture Tel systems.

c) Since Video Conferencing equipment may be used for Distance Education, the Assistant Chancellor of Information Technology or designate will be involved in the purchase and installation decisions.

9. **Documentation of Infrastructure Installations**

a) Hard copy schematics will be on file at the District Office and will be kept current. These schematics and all construction plans related to the Infrastructure will be on file with the Director of Information Technology Infrastructure.

b) Schematics will also be provided and kept current through CAD.

c) District and/or campus architects will provide both hard copy and CAD schematics.

10. **Maintenance**

a) Generally, new information technology equipment will be covered by warranties and maintenance contracts.

b) The District/Colleges will perform first echelon maintenance on standard PC's and printers not covered by warranties or contracts.

c) Maintenance beyond first echelon that is not covered by warranties or contract will be performed by firms selected by the Colleges/District.

d) Decisions to discard and replace rather than repair should be made after consultation with the appropriate District or campus personnel.

11. **Responsibility**

a) General responsibility for infrastructure is vested in the District Director of Information Technology Infrastructure.

b) Questions of policy and standards will be brought to the District Information Technology Committee.

c) The Chancellor's Cabinet will adjudicate differences arising out of the Information Technology Committee.

d) All infrastructure changes and/or new installations requiring bid documents will follow the procedures of developing specifications that meet standards noted in this document, and which have the approval of the Chancellor or designee.

12. **Change**

a) All standards referred to in this document have been adopted by the District and are a matter of record in the District Information Technology Plan.

b) It is acknowledged that in the rapidly changing environment of information technology, it may become necessary to modify standards. Proposed changes in the standards will be approved by the Information Technology Committee.

Approved: ITTF — April 8, 1996
Approved: Chancellor's Cabinet — April 23, 1996
Adopted: April 30, 1996
Amendments Approved: ATC — May 8, 1997
Amendments Approved: ITC — May 21, 1997
Amendments Approved: Cabinet — June 10, 1997
Laptop Section Approvals:
ITC — September 3, 1997
ATC — October 16, 1997
Cabinet — November 13, 1997
Change in PC Standards Approved:
ITC — May 6, 1998
ATC — June 1, 1998
Cabinet — July 15, 1998
Change in Network Topology Standards Approved:
ITC — May 6, 1998
ATC — June 1, 1998
Cabinet — July 15, 1998
Change in PC Standards Approved
Information Technology Committee — March 17, 1999
Distributed—April 1, 1999

COMPUTER USE PROCEDURES

Improper uses of Colleges/District computer facilities are prohibited as follows:

1. The use of computer resources for cheating, plagiarism, furnishing false information, or other acts of academic dishonesty is prohibited.

2. The use of computer systems shall not interfere with the work of employees or students nor disrupt the normal operation of the Colleges/District. The insertion of data into a computer system to deliberately cause problems resulting in extra work or downtime is prohibited.

3. Computer use which monopolizes resources; network use which creates unnecessary network traffic; broadcast of inappropriate electronic mail and messages; transmission of electronic chain letters or other requests for money; and distribution or circulation of media known to contain computer viruses are prohibited.

4. Copying, distributing (either free or for monetary gain), or receiving copyrighted software or electronic information without paying the specified fee (U.S. copyright laws) are prohibited.

5. Unauthorized sharing and/or attempting to access computer accounts, or accessing codes and passwords of other users are prohibited.

6. Unauthorized commercial or business use of Colleges/District computer resources for individual or private gain is prohibited.

7. Use of College/District computer resources to intentionally transmit, receive, or copy obscene or abusive materials is prohibited.

8. Use of College/District computing facilities to access or attempt to access student or employee information for any purpose not specifically job-related violates state and federal laws and District policy and is prohibited.

9. The Electronic Communications Privacy Act (federal law) includes electronic mail and messages in the same category as U.S. mail and telephone calls, and defines unauthorized attempts to access another user's information as unlawful behavior; such behavior is prohibited.

C. **Sanctions**

The consequences for violations of these procedures are described in the laws of the State of California and the Kern Community College District Board Policy Manual. Penalties for violations depend on the specific situations, but may include serious consequences including legal action.

Note #1: These Use Procedures will be part of the Kern Community College District Information Technology Plan, and are in effect until refined and adopted as part of the Board Policy Manual.

Note #2: Procedural Security Measures will be developed and implemented by the Colleges/District at a later date. These security measures will address College/District responsibilities for protecting systems and data from unauthorized use, improper disclosure, accidental alteration, or accidental or intentional destruction.

Adopted: ITTF -- May 15, 1996
Approved: Chancellor's Cabinet -- June 20, 1996

DISTANCE EDUCATION

Information Technology

Computer Use Procedures

A. **Introduction**

The Kern Community College District provides computing resources that benefit faculty, staff, and students and support the instructional and administrative activities of the Colleges and the District. The District is committed to computer policies which promote the mission of the Colleges and encourage respect for the rights of other computer users.

Use of computing resources and facilities must be for activities related to the mission of the Colleges and the District. Computing resources are to be used in an effective, efficient, ethical and lawful manner.

Access to computer systems and networks, including Internet, imposes responsibilities and obligations on the part of users. Users are expected to demonstrate respect for intellectual property, data ownership, system security, individuals' rights to access information, and freedom from intimidation or harassment.

The following policies shall apply to all individuals, i.e., staff, students, and other users accessing College and District computing and networking resources, regardless of access point (i.e., local, remote, Internet). The Colleges shall develop and implement procedures related to campus administrative computing, campus instructional computing, access to both systems, and other electronic computing systems. These College procedures will be consistent with the prohibitions set forth in this document.

B. **Use of Facilities and Resources**

Computer use shall be consistent with the educational, academic, and administrative purposes of the Colleges/District and shall respect the rights of other computer users.

All users are expected to learn and follow College/District guidelines for the use of specific facilities regarding prohibitions about food, beverages, smoking, and computer games; protection of equipment; equal access opportunities; and rights of other users.

Information Technology

Distance Education

Introduction

The Kern Community College District promotes initiatives that support and further the missions of Bakersfield College, Porterville College, and Cerro Coso College. These include the use of telecommunications to increase the opportunities for access to quality instruction and services for the residents of the KCCD service area, an area of over 8,000 square miles. The use of instructional technology delivery systems to provide instruction and services to students at a distance from the instructor in space and time is referred to as distance education, and provides a way other than traditional means for interacting with students.

While it is not perceived that all faculty will be involved in this method of instruction, the Kern Community College District believes that those who do choose to participate will be expanding student access to an outstanding faculty, and count on that faculty to add value to the students' learning experiences.

Distance education is evolving rapidly both in the methods of delivery and the target audiences. Geographic barriers are being overcome. Many distance education providers deliver high-quality learning experiences, including complete degree programs, for the global community.

Rationale

KCCD is committed to providing **access** to opportunities for all of its students to develop the skills and acquire the knowledge critical to success in this "information age." The use of telecommunications technology to reach learner populations unable to attend traditional classes because of distance, disabilities, and family and work obligations is appropriate. Local surveys indicate that distance education courses currently offered have increased the number of students served.

Distance education allows **more courses** to be offered. Small enrollments at the colleges or learning sites may prohibit courses from being offered unless "collectively", through the use of various technologies, enrollments could be sufficient.

Distance education technologies allow a variety of **student services** to be delivered to remote sites. These include counseling, orientation, advising, career information, financial aid information, and increased access to faculty and staff.

Educational resources can be **shared** through distance education modalities. This includes sharing the expertise of human resources as well as material resources.

Exposure to and participation in distance education technologies assists learners to develop a **technological literacy** important to future success in the workplace.

Many strategies for **improving the learning process** such as increased individualization, collaborative learning, and active learning can be accomplished through distance education efforts of talented faculty.

Distance education technologies/facilities provide opportunities not only for the delivery of instruction and student services, but also for **staff development** efforts. The recent surveys conducted by ITTF reflect the need for these activities. Using the distant education technologies for this purpose will be time and cost effective.

Distance education allows KCCD to meet the increased need of businesses/industry and public agencies to **retrain** the workforce at their sites.

The need to develop a strong and viable distance education component is critical in view of current trends in the delivery of post-secondary education in California and the United States. **Competition** for students is already evident. Some of these trends are:

1. An increasing number of schools at all levels are equipped to deliver live, two-way interactive distance education from a "send" site to remote locations.

2. Several states have invested in the installation of an infrastructure meant to deliver distance education to all parts of their educational systems.

3. Hundreds of schools, both K-12 and higher education, have home pages on the Internet. Many of these are offering instruction through their home page, and at least four of the leading Community Colleges in the League for Innovation are now offering an AA degree entirely through the Internet (ie: Miami Dade, Dallas, Maricopa, and Seattle).

4. Most colleges are involved in the creation of CD-ROMs, multimedia courseware, video tapes, and/or the use of other electronic means to deliver education, both on the campus and at a distance.

5. The use and production of TV courses for educational purposes is on the rise. More courses are being offered in this venue, and more students are taking advantage of this method of delivery. Many times these courses also include the use of other technology such as e-mail, CD's, and multimedia, as well as more traditional types of delivery such as mandatory seminars, midterm tests, and finals held on the hosting campus.

6. Competition for students in our service area is increasing. Other educational institutions currently offer courses to our students through TV or the Internet, and many more are poised to enter this market.

7. Business has entered the arena of offering education to students. While most companies have no interest in offering general education courses, they do offer other courses in many disciplines. Examples include Motorola University (which grants degrees), Mind Extension University, and IBM Education.

8. A trend is developing in the general population toward more individualization of products...including education. Students are asking for courses that are competency-based and can be completed at a pace suitable to their own learning rates and styles, can be delivered to locations convenient to the student (including their homes), and that can be taken at times that are compatible with the student's schedule.

9. All predictions for the student population of the KCCD indicate growth beyond that which can be accommodated within current state funding and within current schedule.

These trends cannot be ignored. Those educational institutions who can respond to these needs with quality, student-centered, individualized, and competency-based courses will be in a position of great competitive strength. The KCCD must be one of these.

Types of Distance Education Delivery Systems Planned for KCCD

Telecourses

Telecourses will be designed to offer an integrated package of learning experiences for students. They will include video lessons, a textbook, study guides, and contact with the instructor through review sessions and office/telephone contacts. Telecourses will be delivered by open broadcast, cable, or microwave. Telecourses offer much flexibility as time barriers for students are greatly reduced.

Interactive Distance Instruction

Live, interactive instruction will be provided to students at remote locations through a variety of technologies such as cable, microwave, telephone lines, and satellite. Students will be able to interact with the instructor via telephone or through codec transmissions between the locations.

Interactive delivery systems can vary in their configuration, but most are one-way video two-way audio, or two-way video and audio. Increasingly, computer technologies are being linked to this delivery mode.

Interactive distance instruction will offer "real-time" instruction, allow for "pooling" students at distant sites in order to offer low-enrollment classes, reduce travel for faculty to remote locations, etc. The same facilities will be used for staff training, district-wide meetings, and a variety of other activities.

Computer-Based Delivery Systems **(Distributed Learning Environments)**

Computer-based delivery systems offer increased flexibility to students who have access to a computer/modem/software. From home or their workplace, students may receive instruction and interact with their instructor on either "real" or "delayed" time. Similarly, students may form "study groups" and converse with other students in the class. Courses can be delivered on-line and through the Internet.

Current Status of Distance Education in the KCCD

Telecourses are the predominant mode of delivery of distance education at Bakersfield College and Cerro Coso College. (In fact, Cerro Coso College utilized telecourses as far back as the early 1980's, and Bakersfield has been offering telecourses since the 1960's). Some instructors of telecourses communicate with their students through e-mail.

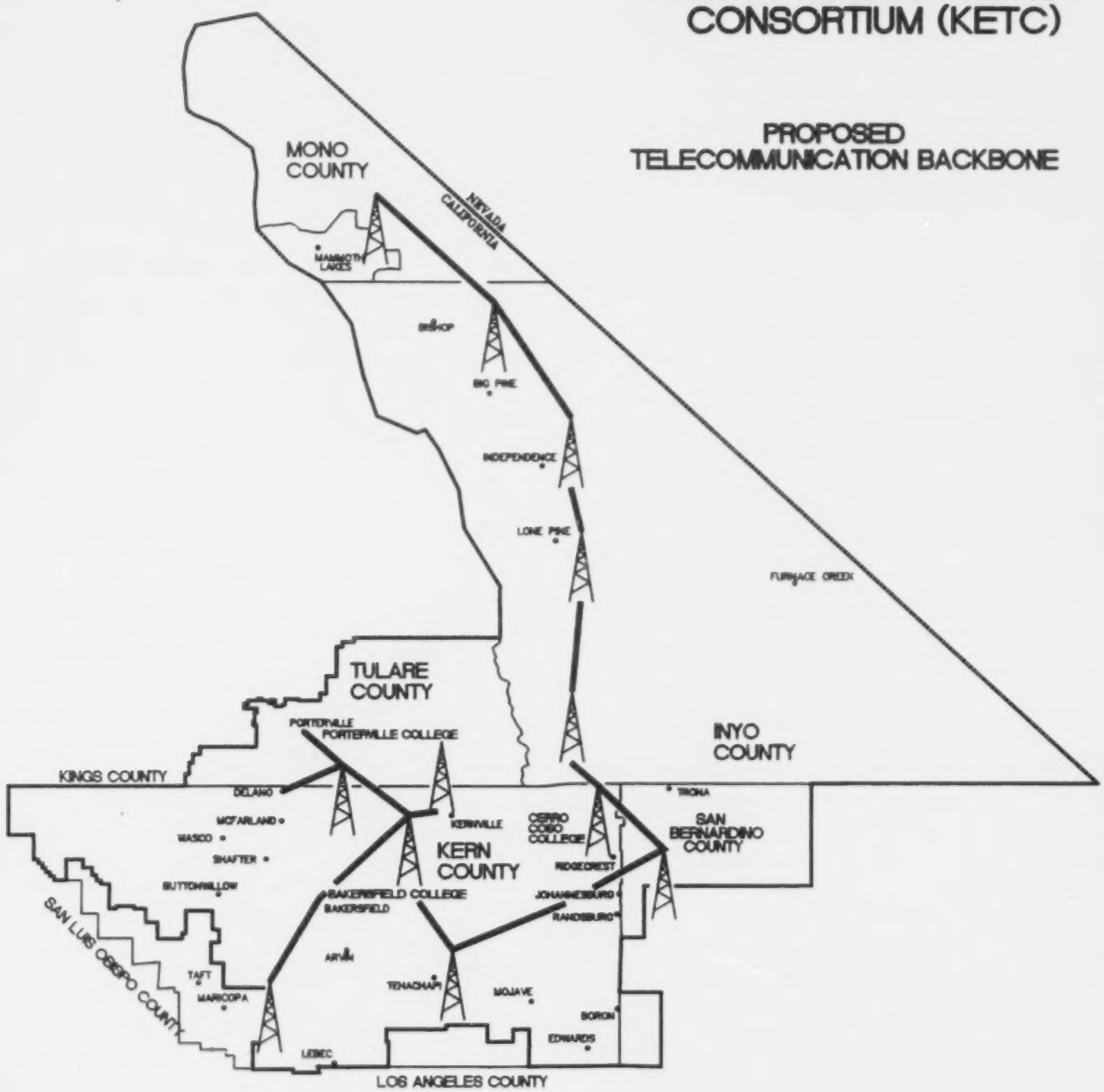
Since 1995, Bakersfield College is also offering live, interactive classes to the Delano Center. These classes are one-way video, two-way audio. During the Spring semester (1996), the first efforts to deliver Student Services information using this technology occurred.

The KCCD is also a member of the Kern Educational Telecommunications Consortium (KETC) which was established to provide an "information highway" within the District's service area. This consortium with an initial grant of $1,600,000 is made up of the Kern Community College District, the Kern County Superintendent of Schools, the Kern High School District, and California State University, Bakersfield. The first phase of the project involves establishing a microwave link between Kern County and the Eastern Sierras for the purpose of delivering and exchanging distance education courses, student services, voice, and data. The Kern County Superintendent of Schools Telecommunication Facility will be the hub of this coordinated project.

On the following page is a proposed schematic illustrating the infrastructure backbone of the consortium's telecommunication system and how this system serves the Kern Community College District.

KERN EDUCATIONAL TELECOMMUNICATIONS CONSORTIUM (KETC)

PROPOSED TELECOMMUNICATION BACKBONE



KERN COMMUNITY COLLEGE DISTRICT SERVICE AREA

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Future Applications For Distance Education

It is anticipated that the following will occur:

1. Distance Education courses will be taught/delivered among the colleges of the KCCD and their various centers. These classes will be supported by an infrastructure that provides computer access to learning resources such as bulletin boards, CD ROMS, e-mail, and multisensory materials.

2. A number of future remote sites within the service area of the KCCD will be identified for the delivery of distance education (Ex: Tehachapi, Frazier Park, Bishop, Mammoth, and Lone Pine).

3. Student Services programming will be delivered to remote sites.

4. Homework hot lines will be established.

5. Staff development, safety training, and other district-wide initiatives will utilize the same facilities.

6. Telecourses may be customized with wrap-arounds (such as brief video tapes of the local instructor providing additional information, CD ROMs containing additional instructor material that are furnished to students, etc.).

7. Original video tapes, multisensory courseware, and CD-ROMs will be developed for use in distance education programs.

8. Modules will be produced to enrich/supplement courses offered through distance education.

9. College courses may be offered at high schools to alleviate high school staffing problems and meet student needs.

10. Degree courses, schedules, library services, and other offerings will be delivered to students via the World Wide Web. In addition, the Web will be used for research.

11. Customized education for businesses will be delivered by tele-communication technologies to their sites.

12. Access to library services will be a part of distance education.

13. A microwave connection will be established between Cerro Coso College. Bakersfield College, Cal State, and the Kern County Superintendent of Schools facilities. Other locations will be brought into this communications network at a later date.

Facilities and Equipment

In order to deliver the type of services outlined above, it will be necessary to acquire specialized infrastructure, facilities, and equipment as follows:

1. The infrastructure and equipment on each campus and at each outreach center that will support the delivery of live two-way interactive distance education. The cabling infrastructure will match the specifications outlined in the "Infrastructure" standards already approved by the District.

2. The infrastructure necessary to support the delivery outlined in #1 must be available between campuses and outreach centers.

3. A telecommunications infrastructure that is capable of providing full access to the Internet, the World Wide Web, and District student information for all faculty, staff and students of the KCCD.

4. A room that is dedicated to the transmission and reception of live two-way interactive distance education. Each campus and each out-reach center within the District must be equipped with at least one of these facilities. This will require the modification or construction of areas designed for this purpose, and the purchase of specialized equipment to send and receive broadcast-quality signals to multiple locations.

5. Facilities where students are able to access multisensory courseware, CD ROM's, and the Internet.

6. Facilities where Web servers reside containing courseware designed to be offered on-line.

7. Facilities where faculty and staff can be trained to use specialized equipment, software, and facilities.

8. Production and post-production facilities where materials can be developed for use on campuses and at a distance. The video studio, post-production editing area, media production area, and multisensory production facilities located at Bakersfield College will be available for use by all KCCD colleges.

Staff Development/Training

Faculty/staff development is a crucial prerequisite to a successful distance education program. Distance education must begin with faculty and staff who have received appropriate training on both the technical and the instructional issues. In order to accomplish this, trainers will be drawn from all colleges, from the Instructional Technology staff, and from outside the boundaries of the KCCD (if necessary). To achieve success in this effort, the following must occur:

1. Appropriate technical staff will be made available to provide the services and the training necessary to establish a successful quality distance education program.

2. Workshops must be offered to faculty and staff on an on-going basis, and at locations convenient to the faculty and staff of all three colleges. Such training must include:

    a. Workshops to help faculty design quality instructional and student services materials for delivery through technology.

    b. Workshops to train faculty and staff on the operation of distance education, audio-visual, and computer-based equipment.

    c. Workshops to train faculty and staff about the use of software that can be utilized to create, enhance, or supplement courseware or other instructional and student support materials.

These courses may be delivered both by traditional and by alternative methodologies.

3. Individualized support will be provided for faculty and staff who wish to obtain assistance in the preparation and/or delivery of instruction or student services through technology.

Approved: ITTF - May 15, 1996

VIDEO CONFERENCING

Information Technology

Video Conferencing

A. **Introduction**

The Kern Community College District encompasses a very large geographic area extending from Porterville in Tulare County, through most of Kern County, all of Inyo County, and a good part of Mono County. The distances between District/Colleges/Centers is so great that staff travel time for necessary meetings becomes a significant burden. Time spent on the road not only reduces time available for productive work, it also is costly and to some degree dangerous. A meeting at the District involving personnel from the three Colleges means four hours on the road for Cerro Coso people and two hours for Porterville staff. As a result, there is a reluctance to call meetings where so much time will be spent on the road.

An effective and reliable system of video conferencing will greatly reduce travel time and enhance communication within the District. As video conferencing facilities come on line, staff will learn how to use it and become comfortable with it. It is anticipated that small groups, or meetings that include as many as twenty people, will use the video conferencing facilities. The equipment to be installed will permit audio/visual communication for conferring, conferencing, or to a limited degree, distance education. The District anticipates expansion of the system to include appropriate equipment and facilities at outreach centers as well as the initial District/Colleges locations.

B. **The System**

The intention of the District is to purchase, install, and maintain a multi point video conferencing system with facilities located at the District, Bakersfield College, Cerro Coso College, and Porterville College. The system will have the capacity to expand to include selected centers operated by the colleges.

The system will be CCITT H. 320 compliant, and will support four separate sites, each site to view all sites simultaneously. Each of the four sites will have a video conferencing facility that will accommodate at least 20 participants. Such facilities will be useable for both large and small group conferencing, as well as limited distance education until such time as more sophisticated distance education equipment and facilities are available. The system to be provided will also support video conferencing at the user desktop to accommodate one-to-one audio-visual communication or counseling.

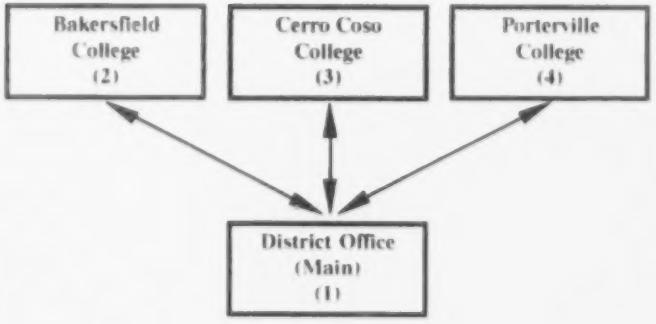
The timetable for acquiring, installing, and training personnel on use will provide for going on line by July 1, 1996.

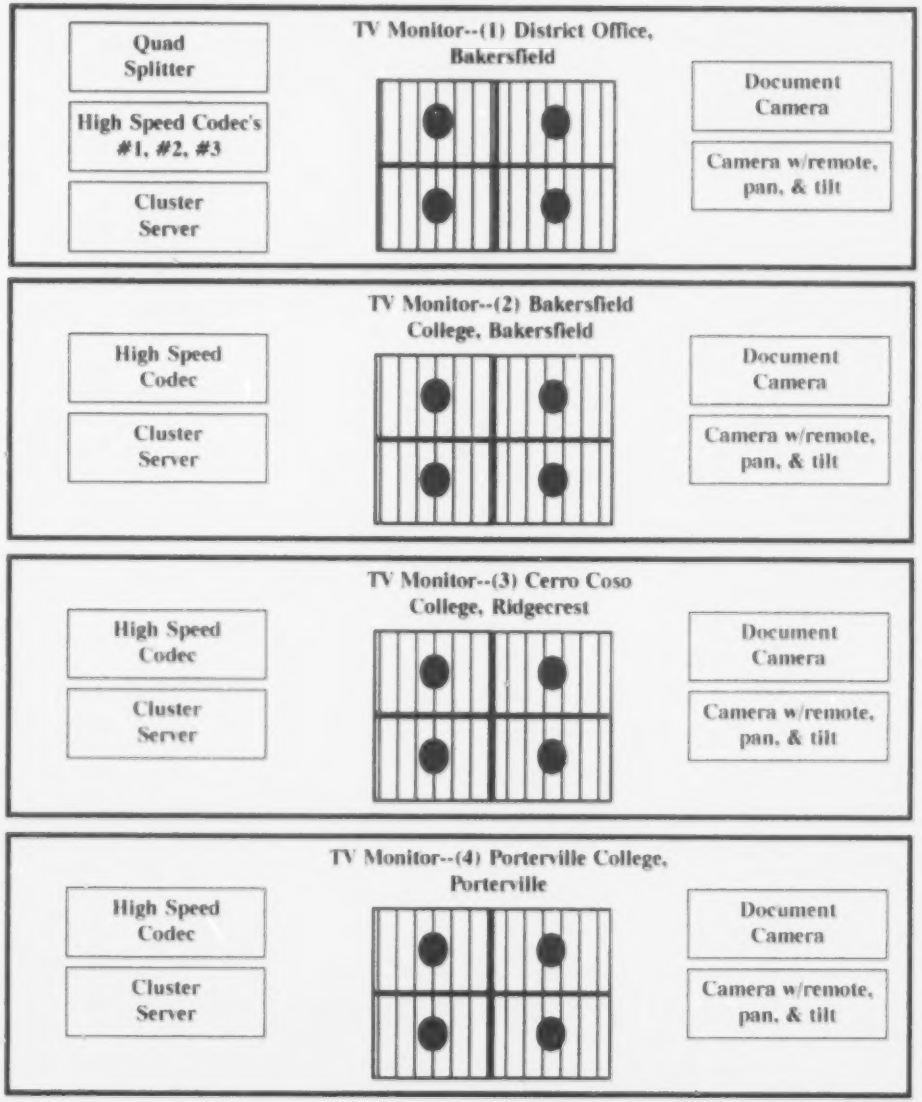
A schematic of the District Video conferencing system is displayed on the following page.

KERN COMMUNITY COLLEGE DISTRICT
VIDEO CONFERENCING SYSTEM

Standards

- View all sites simultaneously--full duplex audio and video
- 35" monitors
- Document Camera at each site
- Camera with remote, pan and tilt at each site
- Transmitted over T1 lines with a 6 x 64n (384k) V.35 ISDN interface to high speed codec



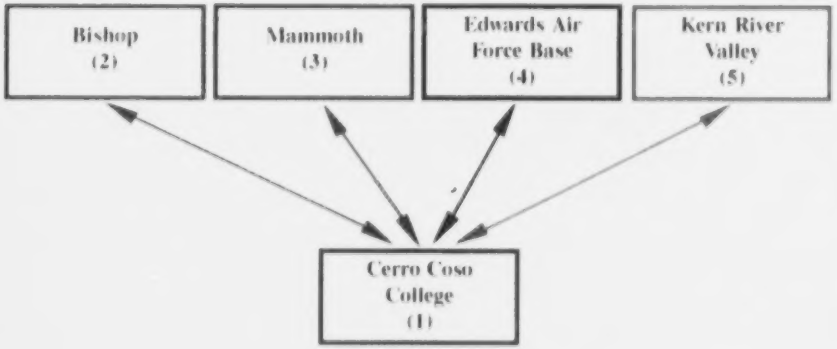


Approved: ITTF February 26, 1995

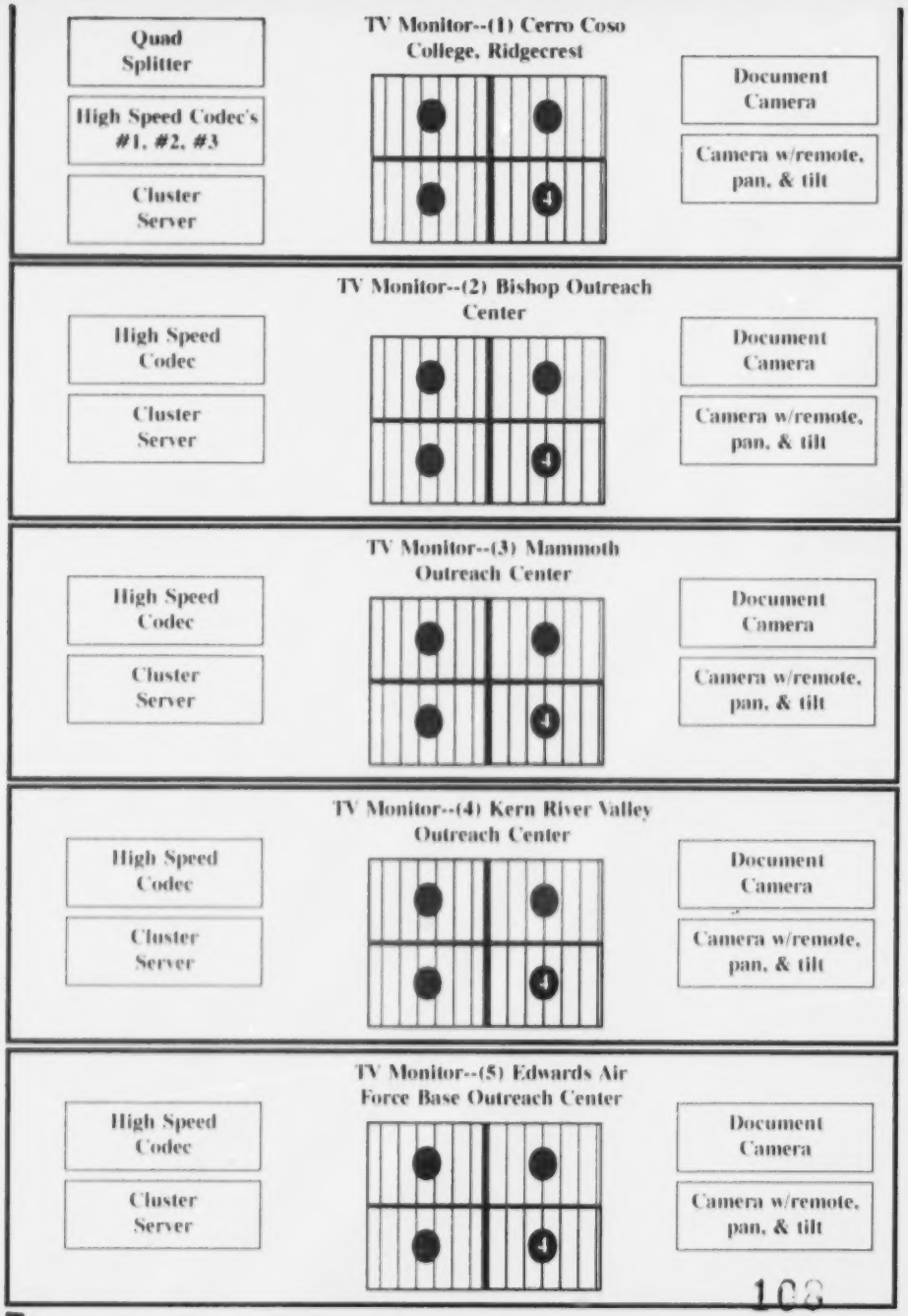
CERRO COSO COLLEGE
VIDEO CONFERENCING/DISTANCE LEARNING SYSTEM

Standards

- View all sites simultaneously--full duplex audio and video
- 35" monitors
- Document Camera at each site
- Camera with remote, pan and tilt at each site
- Transmitted over T1 lines with a 6 x 64n (384k) V.35 ISDN interface to high speed codec



Approved: ITTF February 26, 1995



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FINANCING

Information Technology

Financing

A. Introduction

1. At the Information Technology Retreat held in September, 1994, and more specifically in the employee responses to the IT Survey of March, 1995, financing of information technology was identified as a major concern. The staff feels very strongly about the need for expanding and maintaining IT, and at the same time, recognizes that these efforts will be very expensive. Allocation of limited resources will, as with other operations, require careful and creative planning.

2. Prior to 1996, administrative and instructional computing were separate entities within the Kern Community College District. Over the past three decades, the District has had a centralized department for managing Administrative Technology Services (ATS) district-wide. The responsibility for budget development to accomplish the goals of this department has rested primarily with the District manager responsible for data processing/management information services.

3. During the years referred to in (2), above, the District did not have a parallel department for administering Instructional Technology Services (ITS) on a District-wide basis. Instead, the Colleges, to varying and uneven degrees, assumed the responsibility for setting goals and budgeting resources for the development of ITS on the respective campuses.

4. However, the expanding need for technological services, coupled with limited District resources, resulted in recommendations by the Information Technology Task Force (ITTF) to implement cost-effective measures, including the sharing of staff and resources and the elimination of unnecessary duplication of efforts. To this end, an organizational structure providing for two parallel District-wide managers and two District-wide Committees to function in the areas of ATS and ITS was implemented. A major goal of the new organizational structure was to effect savings while still responding to the needs of the Colleges of the District.

B. **Funding Requirements**

1. Encompassed within the KCCD's Information Technology Plan are numerous areas that require funding. Among these are the following major categories:

   a. The further development of Instructional Technology.

   b. Installation and maintenance of a comprehensive infrastructure system.

   c. The purchase, maintenance, upgrading, and replacement of the centralized mainframe equipment.

   d. The purchase, maintenance, upgrading, and replacement of microcomputers, audio visual equipment, and other information technology equipment.

   e. Development and maintenance of an effective telephone system.

   f. The development and maintenance of first rate classroom, laboratories and studio facilities related to Instructional Technology including space and equipment for Distance Education.

   g. The continuation and upgrading of effective Administrative Technology services.

   h. Useful and accessible audio/visual services.

   i. The licensing of software.

   j. The implementation of effective training programs.

   k. An appropriate staff for providing the necessary services related to Information Technology.

   l. A video conferencing system.

2. The delineation of responsibilities for funding IT is extremely difficult. The District, through its commitment to develop a Plan for Information Technology, has assumed a larger role in its funding. Substantial funds have already been provided for capital outlay items, for staffing, for video conferencing, and for a comprehensive infrastructure system. In addition, the District has historically provided and maintained a system for

Administrative Technology.

The Colleges have budgeted for the expansion of administrative services, and also for the development of Instructional Technology. This latter function has been a major thrust at Bakersfield College, with the other two Colleges also trying to move into this area as funds permit.

With the establishment of the two district-wide Committees in Administrative and Instructional Technology it is the intention to provide a forum for full discussions of District responsibilities and College responsibilities for the funding of Information Technology.

C. **Funding Sources**

1. All of the needs cited above have a common denominator: adequate funding. A serious commitment on the part of the KCCD to information technology requires a significant investment of on-going general funds as well as other resources.

2. The allocation of KCCD general funds for District-wide Administrative and Instructional Technology Services will be according to the following process:

   Taking into account needs developed, prioritized, and recommended by the Colleges, the District-wide Instructional Technology Services Committee (ITSC) and the Administrative Technology Services Committee (ATSC) will annually identify and prioritize District-wide information technology needs, along with estimates of associated budgetary support required for their respective areas.

   Budget proposals from ITSC and ATSC will be submitted to the Chancellor's Cabinet for approval.

3. Identification of campus information technology needs, and the allocation of College funds to support those needs not covered through District ATS and ITS allocations will be through existing College committee and budget review processes.

4. While increased resources may result from the redirection of general fund dollars and other existing income sources, the District must also look to forming new types of partnerships for resources as vital options. Private industry is a promising potential partner to the community college. Some colleges have developed equipment and technology sharing options with community businesses in return for training their workers. Other colleges have reduced their costs through the pooling of resources with other colleges, K-12 schools, and other county or city agencies, as has the Kern

District as a partner in the Kern Educational Telecommunication Consortium.

5. Following is a listing of other potential resources which should be aggressively pursued by the District/Colleges.

   - Special grants from agencies, such as the National Science Foundation
   - Creative financing including Certificates of Participation funding and lease-purchase agreements
   - California Community Colleges Capital Outlay Fund
   - Other special California Community College funds
   - Collaboration with local agencies
   - Corporate contributions
   - Corporate partnerships
   - Private contributions
   - Local College Foundations
   - Independent Foundations
   - Commercial sales of instructional materials developed by faculty and staff
   - Cooperative purchases with staff, such as lap-top computers for District/College and personal use.

6. Additionally, recipients of special project funds for categorical programs such as Matriculation, the Small Business Development Center (SBDC), and Disabled Students Programs and Services (DSPS), should determine the feasibility of securing needed financial support through these special program funds.

D. **Commitment**

The students of Bakersfield College, Cerro Coso College, and Porterville College are, and will be utilizing information technology in their classes, in their occupations and/or for further studies. They are counting on the Colleges to prepare them for that future.

To this end, the Board of Trustees of the Kern Community College District is committed to providing adequate levels of financial support for staying current, and for replacing information technology equipment and facilities.

Adopted: ITTF - May 15, 1996

EVALUATION

CRITERIA FOR SUCCESS

Information Technology

Evaluation

A. Introduction

In developing this Plan for Information Technology in the KCCD, it has been the intention of the Information Technology Task Force (ITTF) to require and schedule regular and comprehensive evaluations. It is certain that a Plan of this magnitude and importance will have to be altered as experience is gained in its implementation.

Throughout this Plan frequent references are made to evaluation both at the College and District levels. Evaluation is called for in the Guiding Principles (#18); it is mentioned frequently by staff in the Survey of March, 1995; with respect to the Organizational Structure, the various Committees and Directors are charged with responsibilities for evaluation; the College Information Technology committees are asked to assist with evaluation at the College and District levels; it is anticipated that infrastructure schematics and standards will be modified with experience, and thus subject to regular evaluation; and Video conferencing, Computer Use Policies, Distance Education and Financing Information Technology will all be evaluated on a regular basis.

Annually, the District-wide Instructional and Administrative Technology Committees will identify and prioritize needs for information technology. This will be done after input from the College IT Committees expressing their needs and priorities.

As the Plan is put into effect and experience is gained, evaluation will of necessity be on-going. The District-wide and College based Committees will be meeting to confront and resolve issues related to IT. Changes will be recommended and made, and the Plan will become a dynamic instrument that is constantly straining to meet needs and thus changing.

However, in addition to the on-going evaluation and change process, ITTF recommends a formal evaluation of the Plan, on a biennial basis. The District has the responsibility to plan, initiate, and conduct this evaluation which will note the benchmarks implicit in the current Plan and the recommendations for change to meet current needs. The Chancellor of the District will appoint and convene an ad hoc Information Technology Task Force to conduct this biennial evaluation.

B. **Criteria for Success**

In conducting the biennial evaluation, and in encouraging on-going evaluation, the District will be guided by the following Criteria of Success:

- **The Information Technology Mission Is Widely Understood And Implemented.**

  Raise this question periodically with the Administrative Technology Services Committee (ATSC), the Instructional Technology Services Committee (ITSC), and the College IT Committees.

- **The Information Technology Guiding Principles Are Widely Understood And Implemented.**

  Test this hypothesis as with the IT Mission, above.

- **The Information Technology Organizational Structure Is Effective In Implementing The Plan.**

  This hypothesis should be reviewed biennially by the ad hoc Task Force, involving other appropriate groups, and make recommendations to correct weaknesses that are identified.

- **The Information Technology Organizational Structure Is Effective In Implementing The Concepts Of Coordination/Sharing, And Also In Limiting Unnecessary Duplication.**

  ATSC and ITSC will, on a continuing basis, insist on coordination/sharing where these concepts are appropriate and feasible. The question of unnecessary duplication will always be raised as new requests are considered by any of the IT Committees.

- **The Information Technology Needs Of Students Are Being Met.**

  The ad hoc Task Force will periodically survey students to determine whether or not their IT needs are being met in both instruction and services.

- **The Implementation Of The Information Technology Plan Results In Meeting The Needs Of A Higher Percentage Of Students In Both Instruction And Services.**

  ATSC and ITSC will establish and implement a system of tracking and logging that will provide these data.

- **The Information Technology System Provides For Immediate Access To Student Outcomes.**

  Through the ID Card Integrator System and SCT/Banner, student outcomes can be identified, tabulated, and treated statistically to measure success or lack of it. The ATSC and the ITSC along with the College IT Committees will periodically make this evaluation.

- **The Needs Of Faculty With Respect To Information Technology Will Be Identified, And Consistent Efforts Will Be Made To Meet Faculty Needs.**

  Through campus IT Committees develop an on-going system for determining faculty IT needs, assessing whether or not those needs are being met, and making recommendations to ATSC and ITSC for meeting these needs.

- **Information Technology Turf Issues Will Be Overcome.**

  ATSC and ITSC will settle most turf battles, and only make referrals and recommendations to the Chancellor's Cabinet for decision under extenuating circumstances.

- **Training Programs For Faculty And Staff With Respect To Information Technology Will Be Planned And Instituted.**

  ATSC and ITSC will take the lead to see that appropriate training programs are in place and functioning in their respective ares of responsibility and take steps to rectify identified faults.

Adopted: ITTF -- June 3, 1996

SUMMARY OF RECOMMENDATIONS

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Information Technology

A Summary of Major Recommendations

1. That Information Technology be developed on a District-wide basis with full participation of the three Colleges.

2. That Information Technology be coordinated, District-wide, using a consensual approach through the District Administrative and Instructional Technology Committees.

3. That the Committees referred to in #2, above, foster and establish effective two-way communication with the College Information Technology Committees.

4. That the principle of sharing of facilities and personnel with respect to Information Technology be implemented.

5. That the need for developing Instructional Technology, District-wide, be given a high priority, and an organizational structure and climate be put in place to meet this need.

6. That the results of the Student and Staff Surveys be reviewed and used as planning for Information Technology goes forward in the Kern Community College District.

7. That the development of the District-wide telecommunication infrastructure described in this Plan be implemented.

8. That the telecommunication infrastructure be continually evaluated based on performance and services to students and staff, with improvements made as deemed appropriate.

9. That the infrastructure standards adopted as an integral part of this Plan be adhered to, and only deviated from or changed with due process.

10. That the computer Use Procedures appearing in this Plan be adhered to until a Board Policy section is adopted to govern computer use.

11. That the District develop and adopt Procedural Security Measures to protect the Information Technology systems and data from abuse.

12. That Distance Education be developed in an orderly and effective manner, emphasizing the sharing of facilities and personnel.

13. That the Video Conferencing system established in this Plan be used to expedite communication, and thus reduce travel time.

14. That both The Instructional and Administrative Technology Committees have District budgets for personnel, equipment, and services.

15. That the evaluation of this Plan, and correspondingly all of Information Technology, take place on a continuing basis; and that agreed upon changes in the Plan be documented and implemented.

APPENDICES

APPENDIX "A"

PLANNING SUGGESTIONS

Information Technolgy

Retreat Planning Suggestions

A. **Introduction**

At the Retreat held on September 22 and 23, 1994, the Retreat participants meeting in small groups, were asked to develop a list of suggestions related to planning for Information Technology. These lists were compiled, distributed, used as guidelines by ITTF, and are summarized here in Appendix A.

B. **Suggestions for Planning**

1. Move! Do it now.
2. District should develop a comprehensive plan, and implement it in scheduled stages.
3. Involve staff in the development of IT Plan.
4. An integrated plan must be developed.
5. Keep Plan simple, flexible, and don't let the District Committee that develops the plan get so large as to be unmanageable.
6. Very important to have an IT Plan. Resources are scarce -- don't squander them with duplication.
7. The process of developing an IT Plan will educate staff. Plan shouldn't be an end in itself.
8. IT Plan will establish a direction for the District. Must be followed.
9. Develop Plan even in the absence of funding. Then we will be ready.
10. District Plan should permit creative development of instructional uses of technology right on campus. Don't inhibit with too much prescriptive planning.
11. Caveat – be careful that in emphasizing IT we don't neglect other aspects of improving instruction.

12. District and Colleges must work together to develop IT Plan.

13. Can't maximize resources without a Plan.

14. IT Plan is necessary and desirable. We MUST move in this direction. The old traditional ways are ending.

15. Be sure to get input. Upper managers should be seen but not necessarily heard. Be specific, with time lines and responsibilities. Goals and objectives should reflect Mission statement. Can't solve all problems with technology.

16. Plan is necessary. Need structure and organization.

17. Be careful of a large-scale Plan with no resources to implement.

18. Invest "bucks" in IT support personnel.

19. Develop the Plan as soon as possible.

20. Plan is vital. Should be developed by District and three colleges. Involve people so they "buy" into it. Get started.

21. Begin immediately. Survey what we have and install a review process for new purchases. Emphasize staff development.

22. Plan imperative. Plan has to include how we pay for it.

23. Planning IT should be a high district priority. Include colleges in planning.

24. The big concern is financing a Plan.

25. Emphasize "input in planning" – so we get a better plan that will be implemented.

26. Don't overlook side-effects of adopting an IT Plan. (Another caveat.)

27. In developing IT Plan be sure to distinguish between developing infrastructure and developing what is delivered over the infrastructure.

28. Coordinate IT Plan from District. Involve people who aren't already bogged down. Study other colleges' efforts. Get a mandate for planning from Board. Caveat – there will be trade-offs, we can't have everything!

29. Plan should not relegate traditional instruction to boneyard. Move ahead – yes. But don't forget the lessons of the past. Our own minds are the greatest word processors of all. Don't forget critical thinking. Don't try to imitate the corporate world of "customer," etc.

30. Plan should include specific goals and objectives. Be realistic. Where is the money?

31. Planning should begin with existing college-based educational and facilities plans. IT should have a broad-based definition that includes support system for developing use.

APPENDIX "B"

RETREAT PURPOSES

Information Technology Retreat
September 22 & 23, 1994

Purposes

A. Introduction

1. There is increasing use of information technology for instruction and administration in the District.

2. A plan is needed for the orderly development of the use of information technology.

B. Purposes of Retreat

1. Describe and answer questions on the District infrastructure.

2. Describe and discuss examples of current efforts to use technology in instruction and administration.

3. Become aware of some of the future potential for using technology for instruction and administration.

4. Begin the discussions that will lead to:

   a. An Information Technology Mission Statement.

   b. Elements of an Information Technology Plan.

   c. Procedures for developing an Information Technology Plan.

5. Begin to try to answer the question - "Where do we go from here?"

6. Expect those attending the Retreat to inform others, take the lead in developing the use of technology, and assist with motivating others to consider the use of technology.

APPENDIX "C"

ITTF MEMBERSHIP AND CHARGE

INFORMATION TECHNOLOGY TASK FORCE (ITTF)

November 1994 - June 1996

BAKERSFIELD COLLEGE

MATT HIGHTOWER, ASSOCIATE PROFESSOR[1]

GREG CHAMBERLAIN, ASSOCIATE PROFESSOR[2]

LINDA MCELWRATH, DIRECTOR OF INSTRUCTIONAL TECHNOLOGY SERVICES[3]

MARY ANNE SELF, DEAN OF GENERAL EDUCATION

CERRO COSO COLLEGE

ROE DARNELL, PRESIDENT

PORTERVILLE COLLEGE

JEFF SPALSBURY, ASSOCIATE PROFESSOR

DISTRICT OFFICE

MIKE BUDY, DIRECTOR OF ADMINISTRATIVE TECHNOLOGY SERVICES

LAURAINE COOK, ASSISTANT CHANCELLOR, INSTRUCTIONAL SERVICES

JOHN COLLINS, CONSULTANT AND CHAIR

---

[1]**Served during 1995-96**

[2]**Served during 1994-95**

[3]**Transferred to District**

Information Technology

Task Force

General Charge

The Information Technology Task Force (ITTF) will provide the leadership for developing a Kern Community College District Information Technology Plan.

ITTF Tasks

In developing the IT Plan, the ITTF will:

(1) Determine the current status of the use of IT.

(2) Determine the need for an expanded IT system.

(3) Develop the specifications, and describe the operation and use of a comprehensive, open architecture, information technology infrastructure.

(4) Set forth the principles which will guide the District in the development of IT.

(5) Recommend the strategies for developing the use of information technology in instruction, services to students, and general administration.

(6) Detail the specifics for motivating staff to consider the use of IT.

(7) Detail the specifics for training staff in the use of IT.

(8) Recommend the organizational structure for implementing the use of IT.

(9) Define in detail the costs related to the full development of IT.

(10) Develop a process for the on-going evaluation of IT.

Approved by Cabinet: October 25, 1994

APPENDIX "D"

SURVEY INSTRUMENTS

March 16, 1995

Kern Community College District

STUDENT SURVEY

Computer Uses and Needs

Introduction

The Kern Community College District and its member colleges, Bakersfield College, Cerro Coso College and Porterville College are developing a plan for using information technology for instruction, student services, and administration.

In developing such a plan it is important to have student responses to the questions in this survey. When you have completed this survey, put it in the enclosed addressed and stamped envelope and mail by March 27th. Many thanks.

PLEASE TAKE A FEW MINUTES TO RESPOND.

Personal

Number of units completed by January 31, 1995_____

Major_____

Location _____ Main Campus
_____ Off Campus Site (Note Location)_____

1. Do you use a computer for any of your college classes?
_____ Yes
_____ No

If your answer to #1 is "Yes," please rate your proficiency:
_____ Beginner
_____ Intermediate
_____ Advanced

If your answer to #1 is "No," why not?
_____ Not required
_____ No access to computer
_____ Need training
_____ Not interested
_____ Other (specify below)
_____
_____

2. Do you have a computer at home?
_____ Yes
_____ No

If your answer to #2 is "Yes," is this computer compatible with computers at the college?
_____ Yes
_____ No
_____ Do not know

If your answer to #2 is "No," are you considering buying a computer within the next 12 months?
_____ Yes
_____ No

3. If you have a computer at home, do you have a modem that permits you to access on-line services?
_____ Yes
_____ No

If your answer to #3 is "Yes," which on-line services are you using?
_____ CompuServe
_____ America On Line
_____ Internet
_____ Prodigy
_____ Other (specify below)
_____
_____

4. How important is it that students have access to computer workstations and software as tools in their academic work?
_____ Very important
_____ Somewhat important
_____ Not important

5. To what extent do you have access to current college computing facilities?
_____ Good access
_____ Some access
_____ No access
_____ Not needed

In the space below there is room for you to comment on access.
_____
_____

6. With respect to your current and future employment requirements, should your college increase its commitment to the use of computers?
_____ Yes
_____ No

7. The computing applications most important to your future success are: (Put in priority order using #1 as highest and #10 as lowest)

_____ Computer assisted drafting (CAD), design, engineering, manufacturing
_____ Database
_____ Keyboard typing skills
_____ Multimedia
_____ Presentations
_____ Programming
_____ Simulation/Modeling
_____ Spreadsheets
_____ Word Processing
_____ Others (specify below)

_____
_____

8. How effectively are the courses that teach you about using computers meeting your needs?

_____ Very effective
_____ Effective to some degree
_____ Not effective
_____ No experience

Comments and/or suggestions:

_____
_____

9. How effectively are courses that use computers to help present the course material meeting your needs?

_____ Very effective
_____ Effective to some degree
_____ Not effective
_____ No experience

Comments and/or suggestions:

_____
_____

10. Would you support the concept that every college student should be able to use a computer in his/her academic work?

_____ Yes
_____ No
_____ To some degree

11. Do you use the telephone registration system for enrolling in classes?

_____ Yes
_____ No

If your answer to #11 is "Yes," please rate this service:

_____ Good
_____ Adequate
_____ Poor

How could telephone registration be improved?

_____
_____

12. Do you use computers, either directly or indirectly, in any of the following student services? (Check all that apply:)
_____ Academic major information
_____ Application to the College
_____ Assessment
_____ Career Planning
_____ College Transcript
_____ Counseling
_____ Financial Aid
_____ Orientation
_____ Registration
_____ Transfer information
_____ Others (Specify below:)

13. In the areas referred to in item #12, above, what would you like to see happen to improve those services through the use of computer technology?

14. With respect to your college library, do you use the library resources?
_____ Yes
_____ No

15. If library materials such as CD ROMs, on-line databases, and other types of reference material were available from your home computer, how valuable would this be to you?
_____ Very valuable
_____ Valuable to some degree
_____ Not valuable
_____ No computer at home
_____ Need to learn more about the possibilities

16. With respect to library services, what would you like to see happen to improve those services through the use of information technology?

In the space below note any additional comments you wish to make related to the use of computers.

March 16, 1995

Kern Community College District

FACULTY AND STAFF SURVEY

Information Technology Uses and Needs

Introduction

To begin the development of a plan for using information technology in instruction, student services, and administration, the District Information Technology Task Force must determine the level of current uses and needs related to information technology. This survey concerns itself with these issues.

ALL EMPLOYEES ARE BEING ASKED TO RESPOND TO THIS SURVEY. QUESTIONS THAT ARE NOT RELEVANT TO YOUR WORK OR FOR WHICH YOU HAVE NO KNOWLEDGE OR OPINION SHOULD BE LEFT BLANK.

Your responses to this survey will be used to guide the Task Force in the development of an Information Technology Plan that will give direction to the District in the development and implementation of the uses of technologies in the classroom, in student services and in administration. It is of crucial importance that we first find out where we are before we proceed with plans for the future.

Please take a few minutes to respond to this Survey and return through Campus/District mail by March 27th. Use the enclosed addressed envelope. Many thanks.

Department/Division/Office_____

CHECK THE ASSIGNMENT(S) (below) THAT APPLY TO YOU.

- ❑ Faculty
- ❑ Adjunct Faculty] ⇨ Primary Discipline _____

- ❑ Counselor/Advisor
- ❑ Department/Division Chair
- ❑ Administrator
- ❑ Classified Staff

ITEMS #1 THROUGH #8 ADDRESS THE GENERAL USE OF COMPUTERS BY FACULTY, STAFF, AND ADMINISTRATORS.

1. Do you use a computer at work?
_____ Yes
_____ No

If your answer to #1 is "Yes," please rate your proficiency:
_____ Beginner
_____ Intermediate
_____ Advanced

If your answer to #1 is "No," why not?
_____ Not interested
_____ No access to computer
_____ Need training
_____ Other (specify below)
_____
_____

2. Do you have a computer at home?
_____ Yes
_____ No

If your answer to #2 is "Yes," is this computer compatible with computers at work?
_____ Yes
_____ No
_____ Don't know

3. If you have a computer at home do you have a modem that permits you to access on line services?
_____ Yes
_____ No

If your answer to #3 is "Yes," which on-line services are you using?
_____ CompuServe
_____ America On Line
_____ Internet
_____ Prodigy
_____ Other (specify below)
_____
_____

4. Do you use a word processor at work?
_____ Yes
_____ No

If your answer to #4 is "Yes," please rate your proficiency:
_____ Beginner
_____ Intermediate
_____ Advanced

Please indicate the word processing software you know how to use:
_____ Microsoft Word
_____ WordPerfect
_____ Other (specify below)
_____

If you do not know how to use a word processor, would you be interested in learning?
_____ Yes

_____ No

5. Do you use a spreadsheet at work?
_____ Yes
_____ No

If your answer to #5 is "Yes," please rate your proficiency:
_____ Beginner
_____ Intermediate
_____ Advanced

Please indicate the spreadsheet software you know how to use:
_____ Microsoft Excel
_____ Lotus 1 2 3
_____ Other (specify below)
_____
_____

If you do not know how to use a spreadsheet, would you be interested in learning?
_____ Yes
_____ No

6. Check below the computer areas in which you would like to receive training.
_____ dBASE
_____ OfficeVision
_____ ParTest
_____ Schedule Plus
_____ Other (specify below)
_____
_____

7. Please indicate which of the following telephone-related features you currently know how to use, and on which you would like to receive training:

	Know how to use	Would like to have access	Would like training
Call forwarding	_____	_____	_____
Call pick-up	_____	_____	_____
Call transfer	_____	_____	_____
Conference call	_____	_____	_____
Creating a voice mail distribution list	_____	_____	_____
Forwarding a voice mail message to another person	_____	_____	_____
Putting a caller on hold	_____	_____	_____
Retrieving a voice mail message	_____	_____	_____
Sending a voice mail message	_____	_____	_____
Other (specify)_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

8. Are you interested in knowing more about distance learning to deliver instruction and services to students at locations removed from the main campus?
_____Yes
_____No

ITEMS #9 THROUGH #18 RELATE PRIMARILY TO INSTRUCTION AND THE DEVELOPMENT OF PRESENTATION MATERIALS.

9. Do you use a computer in the preparation of course and/or presentation materials (handouts, assignments, tests, etc.)?
_____ Often
_____ Sometimes
_____ Never

If your response to #9 is "Never," what is the reason?
_____ No interest
_____ No access to computer
_____ Need training
_____ Other (specify below)
_____
_____

10. Would you be interested in learning more about the use of computers for classroom and/or other presentations?
_____ Yes
_____ No

11. Would you be interested in learning how to have your students or others use computers for problem solving and data access?
_____ Yes
_____ No

12. Do you incorporate electronic media (i.e., scanned pictures, clip art, audio, animated sequences, still-frame video, etc.) into your classroom and/or other presentations?
_____ Often
_____ Sometimes
_____ Never

If your response to #12 is "Never," what is the reason?
_____ Not interested
_____ Not sure how to use in my discipline
_____ Lack of equipment
_____ Lack of software
_____ Need training
_____ Other (specify below)
_____
_____

If your response to #12 is "Often" or "Sometimes," what type of projection equipment do you use? (Check those that apply)
_____ TV Monitor
_____ LCD Panel
_____ Computer Monitor
_____ Ceiling mounted projection system
_____ Other (specify below)
_____
_____

13. If easy-to-use software were available which allowed you to present portions of your course and/or other presentation materials in an information technology format, would you use it?

_____ Often
_____ Sometimes
_____ Never

If your response to #13 is "Never," what is the reason?

_____ Not interested
_____ Not sure how to use in my discipline
_____ Need training
_____ Other (specify below)

_____
_____

14. Are you using multimedia presentation software in your classes and/or for other presentations?

_____ Yes
_____ No

If your answer to #14 is "Yes," which are you using? (Mark those that apply)

_____ Microsoft Powerpoint
_____ Toolbook
_____ Other (specify below)

_____
_____

If your answer to #14 is "No," do you want to learn about this approach?

_____ Yes
_____ No

15. Would you be interested in learning more about the following? (Check all that apply)

_____ Basic computer skills for classroom use
_____ CD ROM programs related to your discipline
_____ Computer simulation/modeling
_____ Customizing professionally developed telecourses
_____ Internet access
_____ Laser discs related to your discipline
_____ On-line database
_____ Skills for preparing taped or live television classes
_____ Use of Interactive video for classroom instruction
_____ Video production and editing
_____ Other (specify below)

_____
_____

16. Do you use a computer to keep grades at the present time?

_____ Yes
_____ No

If your answer to #16 is "Yes," what software do you use?

_____
_____

If your answer to #16 is "No," would you be interested in an easy to use grade book program that would permit you to keep and submit grades via computer?

_____ Yes
_____ No

17. Do you use any type of test generation software?

_____ Yes
_____ No

If your answer to #17 is "No," would you be interested in learning about this approach?

_____ Yes
_____ No

18. List any other areas in information technology about which you would like to learn more.

(1) _____
(2) _____
(3) _____
(4) _____
(5) _____

ITEM #19 REFERS TO OTHER USES OF COMPUTERS.

19. Do you use a computer in any of the following areas? (Check all that apply)

_____ Accessing class schedules
_____ Accessing course descriptions
_____ Accessing data on students
_____ Accessing high school transcripts
_____ Accessing library materials
_____ Accessing major requirements
_____ Accessing Occupational Information
_____ Accessing transfer information
_____ Assessment
_____ Appointment scheduling
_____ Calculating financial aid awards
_____ Computer simulation/modeling
_____ Degree audit
_____ Educational planning
_____ E-Mail
_____ Follow-up studies
_____ Inputting student data
_____ Internet
_____ Orientation class presentations
_____ Tracking students
_____ Other (specify below)

_____
_____
_____
_____
_____
_____
_____

20. As you look ahead, note any areas of improvements that relate to information technology that you feel should take place in the next five years:

(a) _____
_____

(b) _____
_____

(c) _____
_____

In the space below note any additional comments you wish to make related to information technology.

_____
_____
_____
_____